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Date: March 5, 2012
To: Work Assignment Manager, Jeff Catanzarita, EPA/ERTC
From: V. Kansal, Analytical Support Leader, SERAS *V. Kansal*
Subject: Preliminary Results of VOCs in Air Analysis using SERAS SOP# 1814
Project: Cabo Rojo, WA# 0-130

This document contains the analytical results and report for the following samples:

Chain(s) of Custody #: 0-130-3/1/12-(0006-0008)
Analyses: TO-15
No. of Samples: 23
Matrix: Air

This report contains the results of 23 samples received on 03/02/12 for analysis of VOCs in Air by EPA TO-15.

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Table 1.1 Result of the Analysis for VOC(µg/m³) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1009		0-130-1010		0-130-1011		0-130-1030	
	Sample Location	3/3/2012	S2B-IA2	S2B-IA1	S2B-IA1	S2B-AMB1				
Analyte	Results µg/m ³	RL µg/m ³								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277								
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282								
Trichloroethene	U	0.375								
Tetrachloroethene	U	0.473								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1031		0-130-1032	
Sample Location	S2B-AMB2		S2B-AMB3	
Sublocation				
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	0.178
1,1-Dichloroethene	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277	U	0.277
1,1-Dichloroethane	U	0.282	U	0.282
cis-1,2-Dichloroethene	U	0.277	U	0.277
1,2-Dichloroethane	U	0.282	U	0.282
Trichloroethene	U	0.375	U	0.375
Tetrachloroethene	U	0.473	U	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1056		0-130-1014		0-130-1015		0-130-1016	
Sample Location	3/3/2012		TRIP BLANK		EQP-IA1		EQP-IA1		EQP-IA3	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	U	0.345	U	0.345	1.81	0.345	1.78	0.345	0.979	0.345
Chloromethane	U	0.144	U	0.144	1.52	0.144	1.49	0.144	0.921	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	0.653	0.552	1.42	0.552	115	0.552	111	0.552	97.8	0.552
Trichlorofluoromethane	U	0.392	U	0.392	1.24	0.392	1.16	0.392	1.11	0.392
Isopropyl Alcohol	U	0.572								
1,1-Dichloroethene	U	0.277								
Methylene Chloride	U	0.242	U	0.242	0.831	0.242	0.790	0.242	0.785	0.242
Trichlorotrifluoroethane	U	0.535	U	0.535	0.605	0.535	0.558	0.535	U	0.535
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	U	0.206	U	0.206	3.41	0.206	3.64	0.206	2.38	0.206
cis-1,2-Dichloroethene	U	0.277								
Ethyl Acetate	U	0.251	U	0.251	4.70	0.251	4.87	0.251	4.20	0.251
Hexane	U	0.246	U	0.246	2.31	0.246	2.26	0.246	2.22	0.246
Chloroform	U	0.341	U	0.341	6.07	0.341	5.94	0.341	5.84	0.341
Tetrahydrofuran	U	0.206	U	0.206	U	0.206	U	0.206	0.768	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381								
Benzene	U	0.223	U	0.223	0.981	0.223	0.938	0.223	0.954	0.223
Carbon Tetrachloride	U	0.439	U	0.439	0.481	0.439	0.459	0.439	U	0.439
Cyclohexane	U	0.240								
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375								
Heptane	U	0.286	U	0.286	0.897	0.286	0.688	0.286	0.981	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	U	0.286	U	0.286	1.08	0.286	1.77	0.286	0.967	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	U	0.263	U	0.263	12.7	0.263	12.5	0.263	12.0	0.263
2-Hexanone	U	0.286								
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	U	0.473	U	0.473	0.604	0.473	0.749	0.473	0.637	0.473
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	1.32	0.303	1.28	0.303	1.23	0.303
m,p-Xylene	U	0.303	U	0.303	4.30	0.303	4.08	0.303	4.00	0.303
Bromoform	U	0.721								
Styrene	U	0.297	U	0.297	0.447	0.297	0.441	0.297	0.424	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	U	0.303	U	0.303	1.78	0.303	1.68	0.303	1.65	0.303
p-Ethytoluene	U	0.343	U	0.343	1.46	0.343	1.44	0.343	1.38	0.343
1,3,5-Trimethylbenzene	U	0.343	U	0.343	1.23	0.343	1.17	0.343	1.18	0.343
1,2,4-Trimethylbenzene	U	0.343	U	0.343	3.45	0.343	3.18	0.343	3.19	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419	U	0.419	0.465	0.419	0.421	0.419	0.455	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1017		0-130-1023		0-130-1024		0-130-1025		0-130-1026	
Sample Location	EQP-IA2		EQP-IA5		EQP-IA4		EQP-AMB1		EQP-AMB2	
Sublocation	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Analyte										
Propylene	U	0.120								
Dichlorodifluoromethane	1.57	0.345	1.57	0.345	1.74	0.345	1.72	0.345	1.82	0.345
Chloromethane	1.37	0.144	1.44	0.144	1.52	0.144	1.46	0.144	1.64	0.144
Dichlortetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	107	0.552	63.5	0.552	115	0.552	12.5	0.552	14.9	0.552
Trichlorofluoromethane	1.13	0.392	1.24	0.392	1.16	0.392	1.10	0.392	1.19	0.392
Isopropyl Alcohol	U	0.572	U	0.572	U	0.572	1.83	0.572	8.42	0.572
1,1-Dichloroethene	U	0.277								
Methylene Chloride	0.776	0.242	0.342	0.242	0.431	0.242	0.343	0.242	0.279	0.242
Trichlorotrifluoroethane	U	0.535	0.614	0.535	0.637	0.535	U	0.535	0.648	0.535
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	1.92	0.206	1.85	0.206	2.12	0.206	2.02	0.206	2.72	0.206
cis-1,2-Dichloroethene	U	0.277								
Ethyl Acetate	3.93	0.251	1.00	0.251	1.63	0.251	2.15	0.251	2.57	0.251
Hexane	2.38	0.246	1.31	0.246	1.75	0.246	1.75	0.246	1.55	0.246
Chloroform	5.80	0.341	7.40	0.341	15.9	0.341	U	0.341	0.602	0.341
Tetrahydrofuran	0.890	0.206	0.957	0.206	0.347	0.206	1.38	0.206	1.14	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381								
Benzene	0.913	0.223	0.738	0.223	0.918	0.223	0.846	0.223	0.788	0.223
Carbon Tetrachloride	0.471	0.439	0.504	0.439	0.519	0.439	U	0.439	U	0.439
Cyclohexane	U	0.240								
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375								
Heptane	0.722	0.286	0.434	0.286	U	0.286	0.530	0.286	0.530	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	0.937	0.286	1.43	0.286	1.26	0.286	U	0.286	U	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	12.3	0.263	10.3	0.263	7.27	0.263	6.35	0.263	5.97	0.263
2-Hexanone	U	0.286								
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	0.590	0.473	U	0.473	U	0.473	U	0.473	U	0.473
Chlorobenzene	U	0.321								
Ethylbenzene	1.31	0.303	0.809	0.303	1.03	0.303	0.708	0.303	0.845	0.303
m&p-Xylene	4.23	0.303	2.87	0.303	3.37	0.303	2.40	0.303	2.52	0.303
Bromoform	U	0.721								
Styrene	0.402	0.297	0.307	0.297	0.540	0.297	U	0.297	U	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	1.72	0.303	1.14	0.303	1.38	0.303	0.881	0.303	1.02	0.303
p-Ethyltoluene	1.37	0.343	0.561	0.343	1.14	0.343	U	0.343	U	0.343
1,3,5-Trimethylbenzene	1.14	0.343	0.516	0.343	0.915	0.343	U	0.343	U	0.343
1,2,4-Trimethylbenzene	3.23	0.343	1.48	0.343	2.47	0.343	0.961	0.343	0.888	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	0.464	0.419	U	0.419	0.762	0.419	U	0.419	U	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1028 EQP-AMB4		0-130-1029 EQP-AMB5		0-130-1027 EQP-AMB3		0-130-1034 EQP-IA6		0-130-1035 EQP-IA7	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	2.07	0.345	1.52	0.345	1.82	0.345	1.98	0.345	1.76	0.345
Chloromethane	1.86	0.144	1.75	0.144	1.65	0.144	1.78	0.144	1.53	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	391	11.9	19.0	0.552	1060	11.9	1850	11.9	20300	95.0
Trichlorofluoromethane	1.30	0.392	1.19	0.392	1.15	0.392	1.25	0.392	1.46	0.392
Isopropyl Alcohol	3.99	0.572	6.30	0.572	1.53	0.572	1.43	0.572	6.03	0.572
1,1-Dichloroethene	U	0.277								
Methylene Chloride	0.814	0.242	0.444	0.242	2.48	0.242	4.38	0.242	115	0.242
Trichlorotrifluoroethane	0.578	0.535	0.578	0.535	0.562	0.535	0.658	0.535	0.644	0.535
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	3.37	0.206	4.63	0.206	3.73	0.206	2.18	0.206	5.28	0.206
cis-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	0.600	0.277	U	0.277
Ethyl Acetate	3.16	0.251	3.62	0.251	4.62	0.251	4.33	0.251	U	0.251
Hexane	3.06	0.246	1.82	0.246	6.49	0.246	11.4	0.246	34.8	0.246
Chloroform	2.40	0.341	U	0.341	1.69	0.341	1.88	0.341	1.75	0.341
Tetrahydrofuran	0.803	0.206	0.837	0.206	0.736	0.206	0.856	0.206	6.00	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381								
Benzene	0.796	0.223	1.08	0.223	1.10	0.223	1.23	0.223	1.67	0.223
Carbon Tetrachloride	0.459	0.439	U	0.439	U	0.439	0.449	0.439	U	0.439
Cyclohexane	U	0.240	U	0.240	0.309	0.240	U	0.240	1.96	0.240
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375								
Heptane	0.598	0.286	0.587	0.286	0.872	0.286	1.13	0.286	1.36	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	1.61	0.286	U	0.286	1.64	0.286	0.603	0.286	9.31	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	7.50	0.263	13.6	0.263	16.8	0.263	17.6	0.263	154	0.263
2-Hexanone	U	0.286	U	0.286	0.541	0.286	U	0.286	U	0.286
Dibromoethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	U	0.473	U	0.473	0.695	0.473	1.60	0.473	12.3	0.473
Chlorobenzene	U	0.321	U	0.321	U	0.321	U	0.321	0.511	0.321
Ethylbenzene	0.797	0.303	0.885	0.303	1.46	0.303	1.96	0.303	3.10	0.303
m,p-Xylene	3.01	0.303	3.02	0.303	6.30	0.303	8.61	0.303	14.0	0.303
Bromoform	U	0.721								
Styrene	U	0.297	0.306	0.297	0.317	0.297	0.374	0.297	0.422	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	1.37	0.303	1.10	0.303	3.35	0.303	5.36	0.303	17.3	0.303
p-Ethyltoluene	3.15	0.343	0.362	0.343	10.5	0.343	23.2	0.343	191	0.343
1,3,5-Trimethylbenzene	2.42	0.343	0.382	0.343	8.77	0.343	17.9	0.343	152	0.343
1,2,4-Trimethylbenzene	6.25	0.343	1.25	0.343	22.4	0.343	45.0	0.343	450	7.37
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419	U	0.419	U	0.419	U	0.419	0.480	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1036	0-130-1038	0-130-1040	
Sample Location	EQP-IA7	EQP-IA8	EQP-IA9	
Sublocation				
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Propylene (3, 100 m)	U 0.120	U 0.120	U 0.120	U 0.120
Dichlorodifluoromethane (400 m)	1.15 0.345	1.77 0.345	1.78 0.345	
Chloromethane (94 n)	1.05 0.144	1.64 0.144	1.50 0.144	
Dichlorotetrafluoroethane	U 0.488	U 0.488	U 0.488	
Vinyl Chloride (0.16 c)	U 0.178	U 0.178	U 0.178	
1,3-Butadiene	U 0.154	U 0.154	U 0.154	
Bromomethane	U 0.271	U 0.271	U 0.271	
Chloroethane	U 0.184	U 0.184	U 0.184	
Acetone (32, 000 m)	23300 95.0	21000 95.0	913 11.9	
Trichlorofluoromethane	1.32 0.392	1.11 0.392	1.19 0.392	
Isopropyl Alcohol	U 0.572	3.80 0.572	36.5 0.572	
1,1-Dichloroethene	U 0.277	U 0.277	U 0.277	
(Methylene Chloride (5, 2))	118 0.242	600 5.21	1.12 0.242	
Trichlorotrifluoroethane (130 m)	0.613 0.535	0.595 0.535	0.627 0.535	
trans-1,2-Dichloroethene	U 0.277	U 0.277	U 0.277	
1,1-Dichloroethane	U 0.282	U 0.282	U 0.282	
MTBE	U 0.252	U 0.252	U 0.252	
Vinyl Acetate	U 0.246	U 0.246	U 0.246	
2-Butanone (5, 200 m)	4.00 0.206	14.5 0.206	24.2 0.206	
cis-1,2-Dichloroethene	U 0.277	U 0.277	U 0.277	
Ethyl Acetate	0.279 0.251	17.8 0.251	145 0.251	
Hexane	35.8 0.246	31.6 0.246	5.11 0.246	
(Chloroform (0-11))	1.90 0.341	0.818 0.341	2.27 0.341	(Benzene ambient $\approx 1 \mu\text{g}/\text{m}^3$)
Tetrahydrofuran	4.57 0.206	3.08 0.206	U 0.206	
1,2-Dichloroethane (0.094)	U 0.282	U 0.282	1.04 0.282	
1,1,1-Trichloroethane	U 0.381	0.431 0.381	U 0.381	
Benzene (0.31 c)	1.69 0.223	2.93 0.223	2.17 0.223	
Carbon Tetrachloride (0.41 c)	0.439 0.439	U 0.439	U 0.439	
Cyclohexane	2.05 0.240	4.68 0.240	0.793 0.240	
1,2-Dichloropropane	U 0.322	U 0.322	U 0.322	
1,4-Dioxane	U 0.251	U 0.251	U 0.251	
Trichloroethene	U 0.375	U 0.375	U 0.375	
Heptane	1.46 0.286	1.98 0.286	5.24 0.286	
cis-1,3-Dichloropropene	U 0.317	U 0.317	U 0.317	
Methyl Isobutyl Ketone (3, 100 m)	7.42 0.286	7.32 0.286	0.423 0.286	
trans-1,3-Dichloropropene	U 0.317	U 0.317	U 0.317	
1,1,2-Trichloroethane	U 0.381	U 0.381	U 0.381	
Toluene (5, 200 m)	152 0.263	144 0.263	814 5.65	
2-Hexanone	U 0.286	U 0.286	0.345 0.286	
Dibromochloromethane	U 0.594	U 0.594	U 0.594	
1,2-Dibromoethane	U 0.536	U 0.536	U 0.536	
Tetrachloroethene (12.4)	0.473 0.473	47.5 0.473	U 0.473	
Chlorobenzene	U 0.321	U 0.321	U 0.321	
Ethylbenzene (0.97 c)	3.21 0.303	3.73 0.303	18.3 0.303	
m&p-Xylene (100)	14.6 0.303	14.4 0.303	68.7 0.303	
Bromoform	U 0.721	U 0.721	U 0.721	
Styrene	0.439 0.297	0.737 0.297	1.97 0.297	
1,1,2,2-Tetrachloroethane	U 0.479	U 0.479	U 0.479	
o-Xylene (100)	17.9 0.303	12.2 0.303	21.6 0.303	
p-Ethyltoluene	200- 0.343	105 0.343	25.5 0.343	
1,3,5-Trimethylbenzene (N-tow)	154 0.343	78.0 0.343	21.5 0.343	
1,2,4-Trimethylbenzene (7.3)	429 7.37	187 0.343	102 0.343	
1,3-Dichlorobenzene	U 0.419	U 0.419	U 0.419	
1,4-Dichlorobenzene	0.459 0.419	0.628 0.419	1.39 0.419	
1,2-Dichlorobenzene	U 0.419	U 0.419	U 0.419	

Methylene chloride 100-600 $\mu\text{g}/\text{m}^3$ in Print shop
in Print shop
Methylene chloride 100-600 $\mu\text{g}/\text{m}^3$ in Print shop
PCE in Print shop
but below screening levels, except
but below screening levels, except
chloroform in class room
class rooms.

(Benzene ambient $\approx 1 \mu\text{g}/\text{m}^3$)

① Methylene chloride 100-600 $\mu\text{g}/\text{m}^3$ in Print shop

② PCE in print shop but not ~~not~~ above
screening levels, except for sample IA8 ~~not~~ in
a room in the print shop at 47.5 $\mu\text{g}/\text{m}^3$ (slightly
above 41 $\mu\text{g}/\text{m}^3$)

③ chloroform 6-16 $\mu\text{g}/\text{m}^3$ in class room.

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1009		0-130-1010		0-130-1011		0-130-1030	
Sample Location	3/3/2012		S2B-IA2		S2B-IA1		S2B-IA1		S2B-AMB1	
Analyte	Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698								
1,1-Dichloroethene	U	0.0698								
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
cis-1,2-Dichloroethene	U	0.0698								
1,2-Dichloroethane	U	0.0698								
Trichloroethene	U	0.0698								
Tetrachloroethene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air.
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number 0-130-1031 0-130-1032
Sample Location S2B-AMB2 S2B-AMB3
Sublocation

Analyte	Results	RL	Results	RL
	ppbv	ppbv	ppbv	ppbv
Vinyl Chloride	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698
Tetrachloroethene	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1056		0-130-1014		0-130-1015		0-130-1016	
Sample Location	3/3/2012		TRIP BLANK		EQP-IA1		EQP-IA1		EQP-IA3	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	U	0.0698	U	0.0698	0.365	0.0698	0.360	0.0698	0.198	0.0698
Chloromethane	U	0.0698	U	0.0698	0.736	0.0698	0.722	0.0698	0.446	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	0.275	0.233	0.599	0.233	48.5	0.233	46.7	0.233	41.2	0.233
Trichlorodifluoromethane	U	0.0698	U	0.0698	0.221	0.0698	0.207	0.0698	0.198	0.0698
Isopropyl Alcohol	U	0.233								
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	U	0.0698	U	0.0698	0.239	0.0698	0.227	0.0698	0.226	0.0698
Trichlorotrifluoroethane	U	0.0698	U	0.0698	0.0790	0.0698	0.0728	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	U	0.0698	U	0.0698	1.15	0.0698	1.23	0.0698	0.808	0.0698
cis-1,2-Dichloroethene	U	0.0698								
Ethyl Acetate	U	0.0698	U	0.0698	1.30	0.0698	1.35	0.0698	1.16	0.0698
Hexane	U	0.0698	U	0.0698	0.654	0.0698	0.642	0.0698	0.629	0.0698
Chloroform	U	0.0698	U	0.0698	1.24	0.0698	1.22	0.0698	1.20	0.0698
Tetrahydrofuran	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.260	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698								
Benzene	U	0.0698	U	0.0698	0.307	0.0698	0.294	0.0698	0.299	0.0698
Carbon Tetrachloride	U	0.0698	U	0.0698	0.0765	0.0698	0.0729	0.0698	U	0.0698
Cyclohexane	U	0.0698								
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698								
Heptane	U	0.0698	U	0.0698	0.219	0.0698	0.168	0.0698	0.239	0.0698
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	U	0.0698	U	0.0698	0.264	0.0698	0.433	0.0698	0.236	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	U	0.0698	U	0.0698	3.36	0.0698	3.31	0.0698	3.17	0.0698
2-Hexanone	U	0.0698								
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	U	0.0698	U	0.0698	0.0891	0.0698	0.110	0.0698	0.0939	0.0698
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	0.305	0.0698	0.296	0.0698	0.283	0.0698
m&p-Xylene	U	0.0698	U	0.0698	0.991	0.0698	0.939	0.0698	0.920	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698	U	0.0698	0.105	0.0698	0.104	0.0698	0.0995	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	U	0.0698	U	0.0698	0.410	0.0698	0.386	0.0698	0.380	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698	0.297	0.0698	0.294	0.0698	0.281	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698	0.251	0.0698	0.238	0.0698	0.239	0.0698
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698	0.702	0.0698	0.647	0.0698	0.650	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698	U	0.0698	0.0773	0.0698	0.0700	0.0698	0.0757	0.0698
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOCs(ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1017		0-130-1023		0-130-1024		0-130-1025		0-130-1026	
Sample Location	EQP-IA2		EQP-IA5		EQP-IA4		EQP-AMB1		EQP-AMB2	
Sublocation	Results ppbv	RL ppbv								
Analyte										
Propylene	U	0.0698								
Dichlorodifluoromethane	0.317	0.0698	0.317	0.0698	0.353	0.0698	0.348	0.0698	0.368	0.0698
Chloromethane	0.663	0.0698	0.699	0.0698	0.735	0.0698	0.706	0.0698	0.796	0.0698
Dichlortetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	44.9	0.233	26.7	0.233	48.6	0.233	5.26	0.233	6.29	0.233
Trichlorodifluoromethane	0.202	0.0698	0.220	0.0698	0.206	0.0698	0.195	0.0698	0.212	0.0698
Isopropyl Alcohol	U	0.233	U	0.233	U	0.233	0.744	0.233	3.43	0.233
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	0.223	0.0698	0.0983	0.0698	0.124	0.0698	0.0988	0.0698	0.0802	0.0698
Trichlorotrifluoroethane	U	0.0698	0.0802	0.0698	0.0831	0.0698	U	0.0698	0.0846	0.0698
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	0.652	0.0698	0.628	0.0698	0.718	0.0698	0.686	0.0698	0.923	0.0698
cis-1,2-Dichloroethene	U	0.0698								
Ethyl Acetate	1.09	0.0698	0.278	0.0698	0.453	0.0698	0.597	0.0698	0.712	0.0698
Hexane	0.674	0.0698	0.371	0.0698	0.496	0.0698	0.495	0.0698	0.439	0.0698
Chloroform	1.19	0.0698	1.51	0.0698	3.25	0.0698	U	0.0698	0.123	0.0698
Tetrahydrofuran	0.302	0.0698	0.324	0.0698	0.117	0.0698	0.467	0.0698	0.386	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698								
Benzene	0.286	0.0698	0.231	0.0698	0.287	0.0698	0.265	0.0698	0.247	0.0698
Carbon Tetrachloride	0.0748	0.0698	0.0800	0.0698	0.0825	0.0698	U	0.0698	U	0.0698
Cyclohexane	U	0.0698								
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698								
Heptane	0.176	0.0698	0.106	0.0698	U	0.0698	0.129	0.0698	0.129	0.0698
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	0.229	0.0698	0.349	0.0698	0.308	0.0698	U	0.0698	U	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	3.26	0.0698	2.74	0.0698	1.93	0.0698	1.69	0.0698	1.58	0.0698
2-Hexanone	U	0.0698								
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	0.0869	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Chlorobenzene	U	0.0698								
Ethylbenzene	0.302	0.0698	0.186	0.0698	0.237	0.0698	0.163	0.0698	0.195	0.0698
m,p-Xylene	0.974	0.0698	0.661	0.0698	0.777	0.0698	0.552	0.0698	0.581	0.0698
Bromoform	U	0.0698								
Styrene	0.0944	0.0698	0.0720	0.0698	0.127	0.0698	U	0.0698	U	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	0.395	0.0698	0.262	0.0698	0.319	0.0698	0.203	0.0698	0.235	0.0698
p-Ethyltoluene	0.278	0.0698	0.114	0.0698	0.232	0.0698	U	0.0698	U	0.0698
1,3,5-Trimethylbenzene	0.233	0.0698	0.105	0.0698	0.186	0.0698	U	0.0698	U	0.0698
1,2,4-Trimethylbenzene	0.658	0.0698	0.300	0.0698	0.502	0.0698	0.195	0.0698	0.181	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	0.0771	0.0698	U	0.0698	0.127	0.0698	U	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1028		0-130-1029		0-130-1027		0-130-1034		0-130-1035	
Sample Location	EQP-AMB4		EQP-AMB5		EQP-AMB3		EQP-IA6		EQP-IA7	
Sublocation	Results	RL ppbv								
Analyte										
Propylene	U	0.0698								
Dichlorodifluoromethane	0.419	0.0698	0.307	0.0698	0.368	0.0698	0.400	0.0698	0.356	0.0698
Chloromethane	0.902	0.0698	0.847	0.0698	0.798	0.0698	0.862	0.0698	0.740	0.0698
Dichlortetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	165	5.00	8.01	0.233	446	5.00	779	5.00	8540	40.0
Trichlorofluoromethane	0.231	0.0698	0.212	0.0698	0.205	0.0698	0.222	0.0698	0.260	0.0698
Isopropyl Alcohol	1.62	0.233	2.57	0.233	0.623	0.233	0.580	0.233	2.45	0.233
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	0.234	0.0698	0.128	0.0698	0.714	0.0698	1.26	0.0698	33.2	0.0698
Trichlorotrifluoroethane	0.0755	0.0698	0.0755	0.0698	0.0733	0.0698	0.0859	0.0698	0.0840	0.0698
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	1.14	0.0698	1.57	0.0698	1.26	0.0698	0.738	0.0698	1.79	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	0.151	0.0698	U	0.0698
Ethyl Acetate	0.876	0.0698	1.00	0.0698	1.28	0.0698	1.20	0.0698	U	0.0698
Hexane	0.868	0.0698	0.517	0.0698	1.84	0.0698	3.22	0.0698	9.86	0.0698
Chloroform	0.492	0.0698	U	0.0698	0.346	0.0698	0.385	0.0698	0.358	0.0698
Tetrahydrofuran	0.272	0.0698	0.284	0.0698	0.250	0.0698	0.290	0.0698	2.03	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698								
Benzene	0.249	0.0698	0.338	0.0698	0.345	0.0698	0.384	0.0698	0.524	0.0698
Carbon Tetrachloride	0.0730	0.0698	U	0.0698	U	0.0698	0.0713	0.0698	U	0.0698
Cyclohexane	U	0.0698	U	0.0698	0.0899	0.0698	U	0.0698	0.570	0.0698
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698								
Heptane	0.146	0.0698	0.143	0.0698	0.213	0.0698	0.275	0.0698	0.332	0.0698
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	0.394	0.0698	U	0.0698	0.401	0.0698	0.147	0.0698	2.27	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	1.99	0.0698	3.61	0.0698	4.46	0.0698	4.66	0.0698	40.8	0.0698
2-Hexanone	U	0.0698	U	0.0698	0.132	0.0698	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	U	0.0698	U	0.0698	0.103	0.0698	0.236	0.0698	1.81	0.0698
Chlorobenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.111	0.0698
Ethylbenzene	0.184	0.0698	0.204	0.0698	0.337	0.0698	0.451	0.0698	0.715	0.0698
m&p-Xylene	0.693	0.0698	0.695	0.0698	1.45	0.0698	1.98	0.0698	3.22	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698	0.0718	0.0698	0.0745	0.0698	0.0879	0.0698	0.0990	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	0.316	0.0698	0.254	0.0698	0.771	0.0698	1.24	0.0698	3.98	0.0698
p-Ethyltoluene	0.640	0.0698	0.0736	0.0698	2.14	0.0698	4.71	0.0698	38.9	0.0698
1,3,5-Trimethylbenzene	0.492	0.0698	0.0777	0.0698	1.78	0.0698	3.64	0.0698	30.9	0.0698
1,2,4-Trimethylbenzene	1.27	0.0698	0.254	0.0698	4.56	0.0698	9.16	0.0698	91.6	1.50
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.0799	0.0698
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1036		0-130-1038		0-130-1040	
	Sample Location	EQP-IA7	Sample Location	EQP-IA8	Sample Location	EQP-IA9
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Propylene	U	0.0698	U	0.0698	U	0.0698
Dichlorodifluoromethane	0.233	0.0698	0.358	0.0698	0.360	0.0698
Chloromethane	0.507	0.0698	0.793	0.0698	0.727	0.0698
Dichlorotetrafluoroethane	U	0.0698	U	0.0698	U	0.0698
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698
1,3-Butadiene	U	0.0698	U	0.0698	U	0.0698
Bromomethane	U	0.0698	U	0.0698	U	0.0698
Chloroethane	U	0.0698	U	0.0698	U	0.0698
Acetone	9790	40.0	8830	40.0	384	5.00
Trichlorofluoromethane	0.234	0.0698	0.198	0.0698	0.212	0.0698
Isopropyl Alcohol	U	0.233	1.55	0.233	14.9	0.233
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698
Methylene Chloride	34.0	0.0698	173	1.50	0.321	0.0698
Trichlorotrifluoroethane	0.0800	0.0698	0.0777	0.0698	0.0818	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698
MTBE	U	0.0698	U	0.0698	U	0.0698
Vinyl Acetate	U	0.0698	U	0.0698	U	0.0698
2-Butanone	1.36	0.0698	4.90	0.0698	8.22	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698
Ethyl Acetate	0.0773	0.0698	4.95	0.0698	40.2	0.0698
Hexane	10.2	0.0698	8.97	0.0698	1.45	0.0698
Chloroform	0.388	0.0698	0.167	0.0698	0.466	0.0698
Tetrahydrofuran	1.55	0.0698	1.05	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	0.256	0.0698
1,1,1-Trichloroethane	U	0.0698	0.0790	0.0698	U	0.0698
Benzene	0.530	0.0698	0.918	0.0698	0.680	0.0698
Carbon Tetrachloride	0.0698	0.0698	U	0.0698	U	0.0698
Cyclohexane	0.597	0.0698	1.36	0.0698	0.230	0.0698
1,2-Dichloropropane	U	0.0698	U	0.0698	U	0.0698
1,4-Dioxane	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698	U	0.0698
Heptane	0.356	0.0698	0.484	0.0698	1.28	0.0698
cis-1,3-Dichloropropene	U	0.0698	U	0.0698	U	0.0698
Methyl Isobutyl Ketone	1.81	0.0698	1.79	0.0698	0.103	0.0698
trans-1,3-Dichloropropene	U	0.0698	U	0.0698	U	0.0698
1,1,2-Trichloroethane	U	0.0698	U	0.0698	U	0.0698
Toluene	40.4	0.0698	38.2	0.0698	216	1.50
2-Hexanone	U	0.0698	U	0.0698	0.0842	0.0698
Dibromochloromethane	U	0.0698	U	0.0698	U	0.0698
1,2-Dibromoethane	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	1.82	0.0698	7.01	0.0698	U	0.0698
Chlorobenzene	U	0.0698	U	0.0698	U	0.0698
Ethylbenzene	0.739	0.0698	0.859	0.0698	4.22	0.0698
m&p-Xylene	3.35	0.0698	3.32	0.0698	15.8	0.0698
Bromoform	U	0.0698	U	0.0698	U	0.0698
Styrene	0.103	0.0698	0.173	0.0698	0.463	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698	U	0.0698	U	0.0698
o-Xylene	4.11	0.0698	2.81	0.0698	4.98	0.0698
p-Ethyltoluene	40.6	0.0698	21.4	0.0698	5.18	0.0698
1,3,5-Trimethylbenzene	31.3	0.0698	15.9	0.0698	4.38	0.0698
1,2,4-Trimethylbenzene	87.3	1.50	37.9	0.0698	20.7	0.0698
1,3-Dichlorobenzene	U	0.0698	U	0.0698	U	0.0698
1,4-Dichlorobenzene	0.0763	0.0698	0.105	0.0698	0.231	0.0698
1,2-Dichlorobenzene	U	0.0698	U	0.0698	U	0.0698

USEPA

DateShipped: 3/1/2012

CarrierName: FedEx

Airbill No:

R20300

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/1/12-0008

Cooler #: 3

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressur e	Stop_Da te	Stop_Ti me
-01	0-130-1009	S2B-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	14072	13948	-30	3/1/2012	6:43:00 AM
-02	0-130-1010	S2B-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	14070	14045	-30	3/1/2012	6:42:00 AM
-03	0-130-1011	S2B-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	206	13925	-30	3/1/2012	6:42:00 AM
-04	0-130-1030	S2B-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	238	13995	-30	3/1/2012	8:48:00 AM
-05	0-130-1031	S2B-AMB2	TO-15 (Chlorinated)	Air	1	SUMMA	14068	14027	-30	3/1/2012	8:50:00 AM
-06	0-130-1032	S2B-AMB3	TO-15 (Chlorinated)	Air	1	SUMMA	27	13792	-30	3/1/2012	8:45:00 AM
-07	0-130-1056	Trip Blank	TO-15 (Full List)	Air	1	SUMMA	54	—	-30	3/1/12	1:00:00 PM

Special Instructions: Analyze per PWA. Samples 0-130-1009 through 1032 analyzed for chlorinated VOC list only. Trip blank gets full TO-15 analysis.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

USEPA

DateShipped: 3/1/2012

CarrierName: FedEx

Airbill No: 899458692181

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/1/12-0007

Cooler #: 2

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
-08	0-130-1027.	EQP-AMB3	TO-15 (Full List)	Air	1	SUMMA	75	14049	-30	3/1/2012	8:24:00 AM
-09	0-130-1028	EQP-AMB4	TO-15 (Full List)	Air	1	SUMMA	59	13987	-30	3/1/2012	8:24:00 AM
-10	0-130-1029	EQP-AMB5	TO-15 (Full List)	Air	1	SUMMA	180	13802	-30	3/1/2012	8:32:00 AM
-11	0-130-1034	EQP-IA6	TO-15 (Full List)	Air	1	SUMMA	213	13786	-30	3/1/2012	9:30:00 AM
-12	0-130-1035	EQP-IA7	TO-15 (Full List)	Air	1	SUMMA	8	13993	-30	3/1/2012	9:32:00 AM
-13	0-130-1036	EQP-IA7	TO-15 (Full List)	Air	1	SUMMA	186	13952	-30	3/1/2012	9:32:00 AM
-14	0-130-1038	EQP-IA8	TO-15 (Full List)	Air	1	SUMMA	138	14048	-30	3/1/2012	9:34:00 AM
-15	0-130-1040	EQP-IA9	TO-15 (Full List)	Air	1	SUMMA	200	13782	-30	3/1/2012	10:18:00 AM

Special Instructions: Analyze per PWA. Full TO-15 list.

SAMPLES TRANSFERRED FROM

NOTE - Samples 0-130-1027, 1034, 1035, 1036, 1038 and 1040 are indoor air/ambient samples collected in/near a print shop and a freshly painted building and should be analyzed last.

CHAIN OF CUSTODY #

USEPA

DateShipped: 3/1/2012

CarrierName: FedEx

Airbill No: 899458692181

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/1/12-0006

Cooler #: 1

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
-16	0-130-1014	EQP-IA1	TO-15 (Full List)	Air	1	SUMMA	245	13926	-30	3/1/2012	7:48:00 AM
-17	0-130-1015	EQP-IA1	TO-15 (Full List)	Air	1	SUMMA	118	14006	-30	3/1/2012	7:48:00 AM
-18	0-130-1016	EQP-IA3	TO-15 (Full List)	Air	1	SUMMA	258	13908	-30	3/1/2012	7:44:00 AM
-19	0-130-1017	EQP-IA2	TO-15 (Full List)	Air	1	SUMMA	201	13947	-30	3/1/2012	7:46:00 AM
-20	0-130-1023	EQP-IA5	TO-15 (Full List)	Air	1	SUMMA	260	14004	-30	3/1/2012	7:52:00 AM
-21	0-130-1024	EQP-IA4	TO-15 (Full List)	Air	1	SUMMA	14069	13793	-30	3/1/2012	7:50:00 AM
-22	0-130-1025	EQP-AMB1	TO-15 (Full List)	Air	1	SUMMA	193	13932	-30	3/1/2012	8:14:00 AM
-23	0-130-1026	EQP-AMB2	TO-15 (Full List)	Air	1	SUMMA	45	13781	-30	3/1/2012	8:18:00 AM

Special Instructions: Analyze per PWA. Full TO-15 list.	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
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LOCKHEED MARTIN

Date: March 9, 2012
To: Work Assignment Manager: Jeff Catanzarita, EPA/ERTC
From: V. Kansal, Analytical Support Leader, SERAS *V. Kansal*
Subject: Preliminary Results of VOCs in Air Analysis using SERAS SOP# 1814
Project: Cabo Rojo; WA# 0-130

This document contains the analytical results and report for the following samples:

Chain(s) of Custody #: 0-130-3/1/12-(0009-0013)
Analyses: TO-15
No. of Samples: 34
Matrix: Air

This report contains the results of 34 samples received on 03/05/12 for analysis of VOCs in Air by EPA TO-15.

ec R. Singhvi, V.Kansal, D. Miller, D. Killeen, M. Cartwright, G. Depasquale
cc Analyst: Ben Beauchaine
Central File

Table 1.1 Result of the Analysis for VOC(µg/m³) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank	0-130-1057
Sample Location	3/5/2012	Trip Blank
Sublocation		
Analyte	Results µg/m ³	RL µg/m ³
Propylene	U 0.120	U 0.120
Dichlorodifluoromethane	U 0.345	U 0.345
Chloromethane	U 0.144	U 0.144
Dichlorotetrafluoroethane	U 0.488	U 0.488
Vinyl Chloride	U 0.178	U 0.178
1,3-Butadiene	U 0.154	U 0.154
Bromomethane	U 0.271	U 0.271
Chloroethane	U 0.184	U 0.184
Acetone	U 0.552	0.864 0.552
Trichlorofluoromethane	U 0.392	U 0.392
Isopropyl Alcohol	U 2.860	U 2.860
1,1-Dichloroethene	U 0.277	U 0.277
Methylene Chloride	U 0.242	U 0.242
Trichlorotrifluoroethane	U 0.535	U 0.535
trans-1,2-Dichloroethene	U 0.277	U 0.277
1,1-Dichloroethane	U 0.282	U 0.282
MTBE	U 0.252	U 0.252
Vinyl Acetate	U 0.246	U 0.246
2-Butanone	U 0.206	U 0.206
cis-1,2-Dichloroethene	U 0.277	U 0.277
Ethyl Acetate	U 0.251	U 0.251
Hexane	U 0.246	U 0.246
Chloroform	U 0.341	U 0.341
Tetrahydrofuran	U 0.206	U 0.206
1,2-Dichloroethane	U 0.282	U 0.282
1,1,1-Trichloroethane	U 0.381	U 0.381
Benzene	U 0.223	U 0.223
Carbon Tetrachloride	U 0.439	U 0.439
Cyclohexane	U 0.240	U 0.240
1,2-Dichloropropane	U 0.322	U 0.322
1,4-Dioxane	U 0.251	U 0.251
Trichloroethene	U 0.375	U 0.375
Heptane	U 0.286	U 0.286
cis-1,3-Dichloropropene	U 0.317	U 0.317
Methyl Isobutyl Ketone	U 0.286	U 0.286
trans-1,3-Dichloropropene	U 0.317	U 0.317
1,1,2-Trichloroethane	U 0.381	U 0.381
Toluene	U 0.263	U 0.263
2-Hexanone	U 0.286	U 0.286
Dibromochloromethane	U 0.594	U 0.594
1,2-Dibromoethane	U 0.536	U 0.536
Tetrachloroethene	U 0.473	U 0.473
Chlorobenzene	U 0.321	U 0.321
Ethylbenzene	U 0.303	U 0.303
m&p-Xylene	U 0.303	U 0.303
Bromoform	U 0.721	U 0.721
Styrene	U 0.297	U 0.297
1,1,2,2-Tetrachloroethane	U 0.479	U 0.479
o-Xylene	U 0.303	U 0.303
p-Ethyltoluene	U 0.343	U 0.343
1,3,5-Trimethylbenzene	U 0.343	U 0.343
1,2,4-Trimethylbenzene	U 0.343	U 0.343
1,3-Dichlorobenzene	U 0.419	U 0.419
1,4-Dichlorobenzene	U 0.419	U 0.419
1,2-Dichlorobenzene	U 0.419	U 0.419

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Sublocation								
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	0.178	U	0.178	U	0.178
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
1,1-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
cis-1,2-Dichloroethene	U	0.277	0.307	0.277	U	0.277	U	0.277
1,2-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
Trichloroethene	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	2.63	0.473	U	0.473	U	0.473	U	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046		0-130-1049		0-130-1050		0-130-1054		0-130-1055	
Sample Location	DEC-AMB1		DEC-IA3		CRPDC-IA1		CRPDC-IA2		CRPDC-AMB1	
Sublocation	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277								
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282	3.78	0.282	2.48	0.282	U	0.282	U	0.282
Trichloroethene	U	0.375								
Tetrachloroethene	U	0.473	U	0.473	6.77	0.473	4.85	0.473	7.99	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1001		0-130-1002		0-130-1006		0-130-1007		0-130-1008			
Sample Location	S2A-SS2		S2A-SS3		S2B-SS1		S2B-SS2		S2B-SS3			
Sublocation		Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$		Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$		Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$		Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	0.178	U	0.178	U	0.178	U	0.178	U	0.178
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277
1,1-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282	U	0.282	U	0.282
cis-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277	U	0.277
1,2-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282	U	0.282	U	0.282
Trichloroethene	1.58	0.375	39.7	0.375	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	332	0.473	(5760	10.2	21.3	0.473	18.0	0.473	26.6	0.473		

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1003		0-130-1041		0-130-1042		0-130-1043		0-130-1047	
Sample Location	S2A-SS4		DEC-SS3		DEC-SS4		DEC-SS5		DEC-SS1	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277	U	0.277	0.334	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282								
Trichloroethene	4.88	0.375	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	998	10.2	2.29	0.473	1.13	0.473	U	0.473	48.6	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048		0-130-1051		0-130-1052		0-130-1053	
Sample Location	DEC-SS2		CRPDC-SS3		CRPDC-SS1		CRPDC-SS2	
Sublocation								
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	3.83	U	3.83	U	3.83
1,1-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
trans-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
1,1-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07
cis-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
1,2-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07
Trichloroethene	1.66	0.375	57.1	8.06	156	8.06	94.6	8.06
Tetrachloroethene	187	0.473	249000	763	692000	1530	104000	763

Table 1.1 Result of the Analysis for VOC(µg/m³) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1012		0-130-1013		0-130-1018		0-130-1019	
Sample Location	3/6/2012		EQP-SS1		EQP-SS2		EQP-SS3		EQP-SS4	
Sublocation	Results	RL								
Analyte	µg/m ³									
Propylene	U	0.120								
Dichlorodifluoromethane	U	0.345	1.67	0.345	1.73	0.345	1.90	0.345	2.46	0.345
Chloromethane	U	0.144	0.300	0.144	0.238	0.144	0.279	0.144	0.279	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	U	0.552	6.17	0.552	11.1	0.552	31.9	0.552	16.5	0.552
Trichlorofluoromethane	U	0.392	1.14	0.392	2.61	0.392	1.97	0.392	10.3	0.392
Isopropyl Alcohol	U	2.86	1.87	2.86	2.65	0.572	2.00	0.572	43.6	0.572
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	0.618	0.277
Methylene Chloride	U	0.242	0.660	0.242	2.10	0.242	0.911	0.242	U	0.242
Trichlorotrifluoroethane	U	0.535	0.582	0.535	U	0.535	0.541	0.535	U	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	1.00	0.277	0.290	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	U	0.206	2.40	0.206	4.44	0.206	4.12	0.206	2.09	0.206
cis-1,2-Dichloroethene	U	0.277	0.300	0.277	U	0.277	0.390	0.277	17.8	0.277
Ethyl Acetate	U	0.251	1.55	0.251	1.89	0.251	1.91	0.251	1.27	0.251
Hexane	U	0.246	0.324	0.246	0.770	0.246	1.50	0.246	0.763	0.246
Chloroform	U	0.341	2.18	0.341	0.711	0.341	8.69	0.341	U	0.341
Tetrahydrofuran	U	0.206	0.333	0.206	0.506	0.206	U	0.206	0.588	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	U	0.381	1.07	0.381
Benzene	U	0.223	0.297	0.223	U	0.223	0.607	0.223	U	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240								
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	105	0.375	0.480	0.375	0.453	0.375	9.13	0.375
Heptane	U	0.286	U	0.286	U	0.286	0.346	0.286	U	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	U	0.286	1.38	0.286	0.335	0.286	2.23	0.286	3.24	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	U	0.263	3.23	0.263	3.22	0.263	4.04	0.263	1.80	0.263
2-Hexanone	U	0.286	U	0.286	0.328	0.286	0.329	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	U	0.473	7340	10.2	2170	10.2	1790	10.2	2600	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	0.461	0.303	U	0.303
m,p-Xylene	U	0.303	U	0.303	0.528	0.303	1.19	0.303	U	0.303
Bromoform	U	0.721								
Styrene	U	0.297								
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	U	0.303	U	0.303	0.556	0.303	1.23	0.303	U	0.303
p-Ethyltoluene	U	0.343								
1,3,5-Trimethylbenzene	U	0.343								
1,2,4-Trimethylbenzene	U	0.343	U	0.343	0.437	0.343	0.899	0.343	U	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419	U	0.419	U	0.419	0.488	0.419	U	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020		0-130-1021		0-130-1022		0-130-1033		0-130-1037	
Sample Location	EQP-SS5		EQP-SS6		EQP-SS7		EQP-SS8		EQP-SS9	
Sublocation	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	2.37	0.345	1.82	0.345	1.72	0.345	1.09	0.345	2.01	0.345
Chloromethane	0.235	0.144	0.145	0.144	0.518	0.144	U	0.144	1.37	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	20.1	0.552	8.63	0.552	20.1	0.552	11.7	0.552	14400	2380
Trichlorofluoromethane	7.97	0.392	3.11	0.392	1.35	0.392	1.15	0.392	1.35	0.392
Isopropyl Alcohol	8.48	2.86	U	2.86	U	2.86	U	2.86	U	2.86
1,1-Dichloroethene	U	0.277								
Methylene Chloride	0.653	0.242	U	0.242	U	0.242	5.20	0.242	103	0.242
Trichlorotrifluoroethane	0.601	0.535	0.555	0.535	0.579	0.535	0.562	0.535	0.574	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	13.5	0.277	U	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	4.33	0.206	2.57	0.206	4.23	0.206	2.78	0.206	32.4	0.206
cis-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	375	5.95	U	0.277
Ethyl Acetate	2.26	0.251	1.83	0.251	1.76	0.251	1.97	0.251	U	0.251
Hexane	1.21	0.246	1.31	0.246	0.905	0.246	1.37	0.246	41.8	0.246
Chloroform	0.447	0.341	0.508	0.341	0.780	0.341	19.4	0.341	1.63	0.341
Tetrahydrofuran	0.566	0.206	1.37	0.206	0.743	0.206	0.909	0.206	49.6	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	0.638	0.381	U	0.381
Benzene	0.379	0.223	U	0.223	U	0.223	3.32	0.223	1.25	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240	U	0.240	U	0.240	U	0.240	1.12	0.240
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	0.843	0.375	9.41	0.375	3370	8.06	0.654	0.375
Heptane	U	0.286								
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	0.721	0.286	1.06	0.286	2.08	0.286	5.27	0.286	21.6	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	4.93	0.263	2.42	0.263	2.33	0.263	3.26	0.263	858	5.65
2-Hexanone	0.546	0.286	U	0.286	0.319	0.286	U	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	748	10.2	5710	10.2	3650	10.2	756000	2030	561	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	U	0.303	3.90	0.303
m&p-Xylene	0.896	0.303	0.443	0.303	U	0.303	0.504	0.303	16.6	0.303
Bromoform	U	0.721								
Styrene	U	0.297	0.389	0.297	U	0.297	U	0.297	0.526	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	0.581	0.303	0.376	0.303	U	0.303	U	0.303	9.89	0.303
p-Ethyltoluene	U	0.343	U	0.343	U	0.343	U	0.343	61.8	0.343
1,3,5-Trimethylbenzene	U	0.343	U	0.343	U	0.343	U	0.343	47.7	0.343
1,2,4-Trimethylbenzene	0.486	0.343	U	0.343	U	0.343	0.598	0.343	130	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419								
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1039	
Sample Location	EQP-SS10	
Sublocation		
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Propylene	U	0.120
Dichlorodifluoromethane	1.77	0.345
Chloromethane	1.39	0.144
Dichlorotetrafluoroethane	U	0.488
Vinyl Chloride	U	0.178
1,3-Butadiene	U	0.154
Bromomethane	U	0.271
Chloroethane	U	0.184
Acetone	1100	11.9
Trichlorofluoromethane	1.17	0.392
Isopropyl Alcohol	14.6	2.86
1,1-Dichloroethene	U	0.277
Methylene Chloride	16.9	0.242
Trichlorotrifluoroethane	0.606	0.535
trans-1,2-Dichloroethene	U	0.277
1,1-Dichloroethane	U	0.282
MTBE	U	0.252
Vinyl Acetate	U	0.246
2-Butanone	46.0	0.206
cis-1,2-Dichloroethene	U	0.277
Ethyl Acetate	18.7	0.251
Hexane	31.9	0.246
Chloroform	8.78	0.341
Tetrahydrofuran	5.59	0.206
1,2-Dichloroethane	1.04	0.282
1,1,1-Trichloroethane	U	0.381
Benzene	15.0	0.223
Carbon Tetrachloride	0.924	0.439
Cyclohexane	6.58	0.240
1,2-Dichloropropane	1.06	0.322
1,4-Dioxane	U	0.251
Trichloroethene	U	0.375
Heptane	17.7	0.286
cis-1,3-Dichloropropene	U	0.317
Methyl Isobutyl Ketone	U	0.286
trans-1,3-Dichloropropene	U	0.317
1,1,2-Trichloroethane	U	0.381
Toluene	131000	1130
2-Hexanone	U	0.286
Dibromochloromethane	U	0.594
1,2-Dibromoethane	U	0.536
Tetrachloroethene	33.4	0.473
Chlorobenzene	U	0.321
Ethylbenzene	54.2	0.303
m&p-Xylene	133	0.303
Bromoform	U	0.721
Styrene	2.51	0.297
1,1,2,2-Tetrachloroethane	U	0.479
o-Xylene	29.9	0.303
p-Ethyltoluene	12.0	0.343
1,3,5-Trimethylbenzene	8.79	0.343
1,2,4-Trimethylbenzene	27.8	0.343
1,3-Dichlorobenzene	U	0.419
1,4-Dichlorobenzene	1.55	0.419
1,2-Dichlorobenzene	U	0.419

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1057	
Sample Location	3/5/2012		Trip Blank	
Sublocation	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Propylene	U	0.0698	U	0.0698
Dichlorodifluoromethane	U	0.0698	U	0.0698
Chloromethane	U	0.0698	U	0.0698
Dichlorotetrafluoroethane	U	0.0698	U	0.0698
Vinyl Chloride	U	0.0698	U	0.0698
1,3-Butadiene	U	0.0698	U	0.0698
Bromomethane	U	0.0698	U	0.0698
Chloroethane	U	0.0698	U	0.0698
Acetone	U	0.233	0.364	0.233
Trichlorofluoromethane	U	0.0698	U	0.0698
Isopropyl Alcohol	U	1.165	U	1.165
1,1-Dichloroethene	U	0.0698	U	0.0698
Methylene Chloride	U	0.0698	U	0.0698
Trichlorotrifluoroethane	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698
MTBE	U	0.0698	U	0.0698
Vinyl Acetate	U	0.0698	U	0.0698
2-Butanone	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698
Ethyl Acetate	U	0.0698	U	0.0698
Hexane	U	0.0698	U	0.0698
Chloroform	U	0.0698	U	0.0698
Tetrahydrofuran	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698
1,1,1-Trichloroethane	U	0.0698	U	0.0698
Benzene	U	0.0698	U	0.0698
Carbon Tetrachloride	U	0.0698	U	0.0698
Cyclohexane	U	0.0698	U	0.0698
1,2-Dichloropropane	U	0.0698	U	0.0698
1,4-Dioxane	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698
Heptane	U	0.0698	U	0.0698
cis-1,3-Dichloropropene	U	0.0698	U	0.0698
Methyl Isobutyl Ketone	U	0.0698	U	0.0698
trans-1,3-Dichloropropene	U	0.0698	U	0.0698
1,1,2-Trichloroethane	U	0.0698	U	0.0698
Toluene	U	0.0698	U	0.0698
2-Hexanone	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698	U	0.0698
1,2-Dibromoethane	U	0.0698	U	0.0698
Tetrachloroethene	U	0.0698	U	0.0698
Chlorobenzene	U	0.0698	U	0.0698
Ethylbenzene	U	0.0698	U	0.0698
m&p-Xylene	U	0.0698	U	0.0698
Bromoform	U	0.0698	U	0.0698
Styrene	U	0.0698	U	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698	U	0.0698
o-Xylene	U	0.0698	U	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698
1,3-Dichlorobenzene	U	0.0698	U	0.0698
1,4-Dichlorobenzene	U	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Sublocation								
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	0.0775	0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	0.388	0.0698	U	0.0698	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046		0-130-1049		0-130-1050		0-130-1054		0-130-1055		
Sample Location	DEC-AMB1		DEC-IA3		CRPDC-IA1		CRPDC-IA2		CRPDC-AMB1		
Sublocation		Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698	U								
1,1-Dichloroethene	U	0.0698	U								
trans-1,2-Dichloroethene	U	0.0698	U								
1,1-Dichloroethane	U	0.0698	U								
cis-1,2-Dichloroethene	U	0.0698	U								
1,2-Dichloroethane	U	0.0698	0.933	0.0698	0.614	0.0698	U	0.0698	U	0.0698	U
Trichloroethene	U	0.0698	U								
Tetrachloroethene	U	0.0698	U	0.0698	0.998	0.0698	0.715	0.0698	1.18	0.0698	

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1001		0-130-1002		0-130-1006		0-130-1007		0-130-1008		
Sample Location	S2A-SS2		S2A-SS3		S2B-SS1		S2B-SS2		S2B-SS3		
Sublocation		Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698	U								
1,1-Dichloroethene	U	0.0698	U								
trans-1,2-Dichloroethene	U	0.0698	U								
1,1-Dichloroethane	U	0.0698	U								
cis-1,2-Dichloroethene	U	0.0698	U								
1,2-Dichloroethane	U	0.0698	U								
Trichloroethene	0.294	0.0698	7.38	0.0698	U	0.0698	U	0.0698	U	0.0698	U
Tetrachloroethene	48.9	0.0698	849	1.50	3.14	0.0698	2.65	0.0698	3.92	0.0698	

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

	Sample Number 0-130-1003		0-130-1041 S2A-SS4		0-130-1042 DEC-SS3		0-130-1043 DEC-SS5		0-130-1047 DEC-SS1	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	0.0842	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	0.907	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	147	1.50	0.337	0.0698	0.167	0.0698	U	0.0698	7.16	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048		0-130-1051		0-130-1052		0-130-1053	
Sample Location	DEC-SS2		CRPDC-SS3		CRPDC-SS1		CRPDC-SS2	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
trans-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
cis-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,2-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
Trichloroethene	0.309	0.0698	10.6	1.50	29.0	1.50	17.6	1.50
Tetrachloroethene	27.5	0.0698	36700	113	102000	225	15400	113

**Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo**

Method: SERAS SOP#1814

Sample Number	Method Blank 3/6/2012		0-130-1012 EQP-SS1		0-130-1013 EQP-SS2		0-130-1018 EQP-SS3		0-130-1019 EQP-SS4	
Sample Location										
Sublocation										
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Propylene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Dichlorodifluoromethane	U 0.0698		0.338 0.0698		0.351 0.0698		0.384 0.0698		0.498 0.0698	
Chloromethane	U 0.0698		0.145 0.0698		0.115 0.0698		0.135 0.0698		0.135 0.0698	
Dichlorotetrafluoroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Vinyl Chloride	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,3-Butadiene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Bromomethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Chloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Acetone	U 0.233	2.60	0.233		4.65 0.233		13.40 0.233		6.94 0.233	
Trichlorofluoromethane	U 0.0698	0.204	0.0698		0.464 0.0698		0.351 0.0698		1.830 0.0698	
Isopropyl Alcohol	U 1.16		U 1.16		U 1.16		U 1.16		17.800 1.16	
1,1-Dichloroethene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		0.156 0.0698	
Methylene Chloride	U 0.0698	0.190	0.0698		0.603 0.0698		0.262 0.0698		U 0.0698	
Trichlorotrifluoroethane	U 0.0698	0.0759	0.0698		U 0.0698		0.0706 0.0698		U 0.0698	
trans-1,2-Dichloroethene	U 0.0698		U 0.0698		U 0.0698		0.253 0.0698		0.0732 0.0698	
1,1-Dichloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
MTBE	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Vinyl Acetate	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
2-Butanone	U 0.0698	0.814	0.0698		1.510 0.0698		1.400 0.0698		0.707 0.0698	
cis-1,2-Dichloroethene	U 0.0698	0.0757	0.0698		U 0.0698		0.0984 0.0698		4.5000 0.0698	
Ethyl Acetate	U 0.0698	0.430	0.0698		0.524 0.0698		0.529 0.0698		0.353 0.0698	
Hexane	U 0.0698	0.0919	0.0698		0.2190 0.0698		0.4240 0.0698		0.2160 0.0698	
Chloroform	U 0.0698	0.446	0.0698		0.146 0.0698		1.780 0.0698		U 0.0698	
Tetrahydrofuran	U 0.0698	0.113	0.0698		0.172 0.0698		U 0.0698		0.199 0.0698	
1,2-Dichloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,1,1-Trichloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		0.197 0.0698	
Benzene	U 0.0698	0.0930	0.0698		U 0.0698		0.1900 0.0698		U 0.0698	
Carbon Tetrachloride	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Cyclohexane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,2-Dichloropropane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,4-Dioxane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Trichloroethene	U 0.0698	19.5	0.0698		0.1 0.0698		0.1 0.0698		1.7 0.0698	
Heptane	U 0.0698		U 0.0698		U 0.0698		0.0845 0.0698		U 0.0698	
cis-1,3-Dichloropropene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Methyl Isobutyl Ketone	U 0.0698	0.336	0.0698		0.082 0.0698		0.543 0.0698		0.791 0.0698	
trans-1,3-Dichloropropene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,1,2-Trichloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Toluene	U 0.0698	0.858	0.0698		0.854 0.0698		1.070 0.0698		0.478 0.0698	
2-Hexanone	U 0.0698		U 0.0698		0.08 0.0698		0.0804 0.0698		U 0.0698	
Dibromochloromethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,2-Dibromoethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Tetrachloroethene	U 0.0698		1080 1.50		319 1.50		265 1.50		383 1.50	
Chlorobenzene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Ethylbenzene	U 0.0698		U 0.0698		U 0.0698		0.106 0.0698		U 0.0698	
m&p-Xylene	U 0.0698		U 0.0698		0.121 0.0698		0.274 0.0698		U 0.0698	
Bromoform	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
Styrene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,1,2,2-Tetrachloroethane	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
o-Xylene	U 0.0698		U 0.0698		0.128 0.0698		0.283 0.0698		U 0.0698	
p-Ethyltoluene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,3,5-Trimethylbenzene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,2,4-Trimethylbenzene	U 0.0698		U 0.0698		0.089 0.0698		0.183 0.0698		U 0.0698	
1,3-Dichlorobenzene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,4-Dichlorobenzene	U 0.0698		U 0.0698		U 0.0698		U 0.0698		U 0.0698	
1,2-Dichlorobenzene	U 0.0698		U 0.0698		U 0.0698		0.0811 0.0698		U 0.0698	

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020		0-130-1021		0-130-1022		0-130-1033		0-130-1037	
Sample Location	EQP-SS5		EQP-SS6		EQP-SS7		EQP-SS8		EQP-SS9	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	0.479	0.0698	0.369	0.0698	0.348	0.0698	0.221	0.0698	0.406	0.0698
Chloromethane	0.114	0.0698	0.0700	0.0698	0.251	0.0698	U	0.0698	0.661	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	8.46	0.233	3.63	0.233	8.44	0.233	4.92	0.233	6080	1000
Trichlorofluoromethane	1.42	0.0698	0.554	0.0698	0.240	0.0698	0.205	0.0698	0.240	0.0698
Isopropyl Alcohol	3.45	1.16	U	1.16	U	1.16	U	1.16	U	1.16
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	0.188	0.0698	U	0.0698	U	0.0698	1.50	0.0698	29.6	0.0698
Trichlorotrifluoroethane	0.0784	0.0698	0.0725	0.0698	0.0756	0.0698	0.0734	0.0698	0.0749	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	3.41	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	1.47	0.0698	0.873	0.0698	1.43	0.0698	0.941	0.0698	11.0	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	94.5	1.50	U	0.0698
Ethyl Acetate	0.628	0.0698	0.508	0.0698	0.487	0.0698	0.546	0.0698	U	0.0698
Hexane	0.343	0.0698	0.371	0.0698	0.257	0.0698	0.388	0.0698	11.9	0.0698
Chloroform	0.0916	0.0698	0.104	0.0698	0.160	0.0698	3.97	0.0698	0.334	0.0698
Tetrahydrofuran	0.192	0.0698	0.464	0.0698	0.252	0.0698	0.308	0.0698	16.8	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698	U	0.0698	U	0.0698	0.117	0.0698	U	0.0698
Benzene	0.119	0.0698	U	0.0698	U	0.0698	1.04	0.0698	0.392	0.0698
Carbon Tetrachloride	U	0.0698								
Cyclohexane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.324	0.0698
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698	0.157	0.0698	1.75	0.0698	627	1.50	0.122	0.0698
Heptane	U	0.0698								
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	0.176	0.0698	0.259	0.0698	0.509	0.0698	1.29	0.0698	5.27	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	1.31	0.0698	0.643	0.0698	0.617	0.0698	0.865	0.0698	228	1.50
2-Hexanone	0.133	0.0698	U	0.0698	0.0778	0.0698	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	110	1.50	841	1.50	539	1.50	111000	300	82.8	1.50
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.897	0.0698
m&p-Xylene	0.206	0.0698	0.102	0.0698	U	0.0698	0.116	0.0698	3.82	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698	0.0912	0.0698	U	0.0698	U	0.0698	0.123	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	0.134	0.0698	0.0867	0.0698	U	0.0698	U	0.0698	2.28	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	12.6	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	9.70	0.0698
1,2,4-Trimethylbenzene	0.0988	0.0698	U	0.0698	U	0.0698	0.122	0.0698	26.5	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698								
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number 0-130-1039
Sample Location EQP-SS10
Sublocation

Analyte	Results ppbv	RL ppbv
Propylene	U	0.0698
Dichlorodifluoromethane	0.358	0.0698
Chloromethane	0.673	0.0698
Dichlorotetrafluoroethane	U	0.0698
Vinyl Chloride	U	0.0698
1,3-Butadiene	U	0.0698
Bromomethane	U	0.0698
Chloroethane	U	0.0698
Acetone	461	5.00
Trichlorofluoromethane	0.208	0.0698
Isopropyl Alcohol	5.94	1.16
1,1-Dichloroethene	U	0.0698
Methylene Chloride	4.85	0.0698
Trichlorotrifluoroethane	0.0791	0.0698
trans-1,2-Dichloroethene	U	0.0698
1,1-Dichloroethane	U	0.0698
MTBE	U	0.0698
Vinyl Acetate	U	0.0698
2-Butanone	15.6	0.0698
cis-1,2-Dichloroethene	U	0.0698
Ethyl Acetate	5.19	0.0698
Hexane	9.05	0.0698
Chloroform	1.80	0.0698
Tetrahydrofuran	1.90	0.0698
1,2-Dichloroethane	0.257	0.0698
1,1,1-Trichloroethane	U	0.0698
Benzene	4.69	0.0698
Carbon Tetrachloride	0.147	0.0698
Cyclohexane	1.91	0.0698
1,2-Dichloropropane	0.229	0.0698
1,4-Dioxane	U	0.0698
Trichloroethene	U	0.0698
Heptane	4.31	0.0698
cis-1,3-Dichloropropene	U	0.0698
Methyl Isobutyl Ketone	U	0.0698
trans-1,3-Dichloropropene	U	0.0698
1,1,2-Trichloroethane	U	0.0698
Toluene	34700	300
2-Hexanone	U	0.0698
Dibromochloromethane	U	0.0698
1,2-Dibromoethane	U	0.0698
Tetrachloroethene	4.92	0.0698
Chlorobenzene	U	0.0698
Ethylbenzene	12.5	0.0698
m&p-Xylene	30.6	0.0698
Bromoform	U	0.0698
Styrene	0.589	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698
o-Xylene	6.89	0.0698
p-Ethyltoluene	2.44	0.0698
1,3,5-Trimethylbenzene	1.79	0.0698
1,2,4-Trimethylbenzene	5.65	0.0698
1,3-Dichlorobenzene	U	0.0698
1,4-Dichlorobenzene	0.257	0.0698
1,2-Dichlorobenzene	U	0.0698

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

No: 0-130-3/2/12-0009

Cabo Rojo

Contact Name: Michael Cartwright

Cooler #: 4

Contact Phone: 732-321-4284

Lab: SERAS

WO # R 203001

Lab #	Sample #	Location	Analyses	Matrix	Numb · Cont	Container	Pump #	OrificeID	Start Pressur e	Stop_Da te	Stop_Ti me
24	0-130-1004	S2A-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	226	14028	-30	3/1/2012	6:28:00 AM
25	0-130-1005	S2A-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	128	13933	-30	3/1/2012	6:35:00 AM
26	0-130-1044	DEC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	97	14010	-30	3/1/2012	10:36:00 AM
27	0-130-1045	DEC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	129	13794	-30	3/1/2012	10:44:00 AM
28	0-130-1046	DEC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	149	13958	-30	3/1/2012	11:00:00 AM
29	0-130-1049	DEC-IA3	TO-15 (Chlorinated)	Air	1	SUMMA	215	14023	-30	3/1/2012	10:53:00 AM
30	0-130-1050	CRPDC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	10	13762	-30	3/1/2012	11:20:00 AM
31	0-130-1054	CRPDC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	47	14000	-30	3/1/2012	11:23:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All/Analysis	<i>M. Cartwright</i>	3/2/12	FED-EX	3/2/12							
	<i>FEDEX</i>		<i>John Smith</i>	3/5/12	11:30						
All/Analysis	<i>X. abu</i>	3/5/12	<i>Tony</i>	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

WOT# R203001

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0010

Cooler #: 5

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressur e	Stop_Da te	Stop_Ti me
32	0-130-1012	EQP-SS1	TO-15 (Full List)	Soil Gas	1	SUMMA	63	13991	-30	3/1/2012	7:40:00 AM
33	0-130-1013	EQP-SS2	TO-15 (Full List)	Soil Gas	1	SUMMA	228	13789	-30	3/1/2012	7:38:00 AM
34	0-130-1018	EQP-SS3	TO-15 (Full List)	Soil Gas	1	SUMMA	3	14015	-30	3/1/2012	7:36:00 AM
35	0-130-1019	EQP-SS4	TO-15 (Full List)	Soil Gas	1	SUMMA	220	13998	-30	3/1/2012	7:30:00 AM
36	0-130-1020	EQP-SS5	TO-15 (Full List)	Soil Gas	1	SUMMA	14073	13778	-30	3/1/2012	7:28:00 AM
37	0-130-1021	EQP-SS6	TO-15 (Full List)	Soil Gas	1	SUMMA	182	13988	-30	3/1/2012	7:32:00 AM
38	0-130-1022	EQP-SS7	TO-15 (Full List)	Soil Gas	1	SUMMA	266	13990	-30	3/1/2012	7:34:00 AM
39	0-130-1055	CRPDC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	74	14029	-30	3/1/2012	11:24:00 AM

Special Instructions: Analyze per PWA. Sample 0-130-1055 gets Chlorinated list only, the remaining samples get Full TO-15 list.

SAMPLES TRANSFERRED FROM

*Sub-slab sample previously collected at Location EQP-SS1 (sample 0-130-1012) indicated concentrations of 4,970 ppbv for PCE, 83 ppbv for TCE and 50 ppbv for DCE. Similar concentrations may be detected at this location and in other soil gas samples collected at locations EQP-SS2 through 7.

CHAIN OF CUSTODY

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
AN/Analysis	MICHAEL CARTWRIGHT	3/2/12	FED-EX	3/2/12							
FED-EX											
AN/Analysis		3/5/12		3/5/12	11:30						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 89945869319

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0011

Cooler #: 6

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
40	0-130-1001	S2A-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14066	13964	-30	3/1/2012	6:28:00 AM
41	0-130-1002	S2A-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	41	13923	-30	3/1/2012	6:29:00 AM
42	0-130-1006	S2B-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	143	13776	-30	3/1/2012	6:42:00 AM
43	0-130-1007	S2B-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	195	14042	-30	3/1/2012	6:43:00 AM
44	0-130-1008	S2B-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	227	14043	-30	3/1/2012	6:44:00 AM
45	0-130-1033	EQP-SS8	TO-15 (Full List)	Soil Gas	1	SUMMA	144	14036	-30	3/1/2012	9:30:00 AM
46	0-130-1037	EQP-SS9	TO-15 (Full List)	Soil Gas	1	SUMMA	222	13906	-30	3/1/2012	9:32:00 AM
47	0-130-1039	EQP-SS10	TO-15 (Full List)	Soil Gas	1	SUMMA	236	13944	-30	3/1/2012	10:18:00 AM

Special Instructions: Analyze per PWA. Samples 0-130-1001, 1002, 1006, 1007 and 1008 get Chlorinated VOC list. Samples 0-130-1033, 1037 and 1039 get Full TO-15 list.

*Sub-slab sample previously collected near Location EQP-SS8 (sample 0-130-1033) indicated concentrations of 980 ppbv for PCE, 190 ppbv for TCE and 1,700 ppbv for DCE. Similar concentrations may be detected at this location and other soil gas samples collected at location EQP.

*Soil gas samples previously collected near Location S2A and S2B indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at locations S2A and S2B.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All /Analysis	Mahesh	3/2/12	FED-EX	3/2/12	-	←	FED EX	—	JK Jaiswal	3/5/12	11:30
All /Analysis	JK Jaiswal	3/5/12	Parth	3/5/12	1630						

USEPA

Date Shipped: 3/2/2012

Carrier Name: FedEx

Airbill No: 899458692192

CHAIN OF CUSTODY RECORD

No: 0-130-3/2/12-0012

Cooler #: 7

Lab: SERAS

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

W0# R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
48	0-130-1003	S2A-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14074	14011	-30	3/1/2012	6:30:00 AM
49	0-130-1041	DEC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	70	13946	-30	3/1/2012	10:40:00 AM
50	0-130-1042	DEC-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	76	13911	-30	3/1/2012	10:42:00 AM
51	0-130-1043	DEC-SS5	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	166	13912	-30	3/1/2012	10:36:00 AM
52	0-130-1047	DEC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	19	13795	-30	3/1/2012	10:50:00 AM
53	0-130-1048	DEC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	24	14008	-30	3/1/2012	10:52:00 AM
54	0-130-1051	CRPDC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	160	13929	-30	3/1/2012	11:20:00 AM
55	0-130-1052	CRPDC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	112	14047	-30	3/1/2012	11:21:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.

*Soil gas samples previously collected near Location S2A indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at location S2A.

SAMPLES TRANSFERRED FROM

*Soil gas samples previously collected at Locations DEC-SS1 and SS-5 (Samples 0-130-1047 and 1043) were non-detect for PCE, TCE and DEC however soil gas samples collected around the DEC building indicated concentrations of 430 ppbv for PCE and TCE, 850 to 50,200 ppbv for DCE. Similar concentrations may be detected in soil gas samples collected at location DEC.

CHAIN OF CUSTODY

*Soil gas samples previously collected at Location CRPDC-SS1 (Sample 0-130-1052) indicated concentrations of 64,700 ppbv for PCE and 58 ppbv for TCE. Similar concentrations may be detected at this location and in other soil gas samples collected at location CRPDC.

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
A4/Analysis	RELEASER 3/2/12		FED-EX	3/2/12	—	—	FED EX	—	RELEASER	3/5/12	11:30
All/Analysis	RELEASER 3/5/12 DCF			3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

Airbill No: 8994586921

1A59

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0013

Cooler #: 8

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
56	0-130-1053	CRPDC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	119	13989	-30	3/1/2012	11:22:00 AM
57	0-130-1057	Trip Blank	TO-15 (Full List)	Air	1	SUMMA	219		-30	3/2/2012	12:00:00 PM

Special Instructions: Analyze per PWA. Sample 0-130-1053 analyzed for chlorinated VOC list only. Trip blank gets full TO-15 analysis.

SAMPLES TRANSFERRED FROM

*Soil gas samples previously collected at Location CRPDC-SS2 (Sample 0-130-1053) indicated concentrations of 4,870 ppbv for PCE and 32 ppbv for TCE. Similar concentrations may be detected at this location.

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All /Ans (45)	Melvin	3/2/12	FED-EX	3/2/12	-	-	FED-EX	3/5/12	John	3/5/12	11:30
All /Analysts	John	3/5/12	John	3/5/12	1630						

LOCKHEED MARTIN

Date: March 9, 2012
To: Work Assignment Manager: Jeff Catanzarita, EPA/ERTC
From: V. Kansal, Analytical Support Leader, SERAS *Vinod Kansal*
Subject: Preliminary Results of VOCs in Air Analysis using SERAS SOP# 1814
Project: Cabo Rojo, WA# 0-130

This document contains the analytical results and report for the following samples:

Chain(s) of Custody #: 0-130-3/1/12-(0009-0013)
Analyses: TO-15
No. of Samples: 34
Matrix: Air

This report contains the results of 34 samples received on 03/05/12 for analysis of VOCs in Air by EPA
TO-15.

cc R. Singhvi, V.Kansal, D. Miller, D. Killeen, M. Cartwright, G. Depasquale
cc Analyst: Ben Beauchaine
Central File

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank	0-130-1057
Sample Location	3/5/2012	Trip Blank
Sublocation		
Analyte		
	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Propylene	U 0.120	U 0.120
Dichlorodifluoromethane	U 0.345	U 0.345
Chloromethane	U 0.144	U 0.144
Dichlorotetrafluoroethane	U 0.488	U 0.488
Vinyl Chloride	U 0.178	U 0.178
1,3-Butadiene	U 0.154	U 0.154
Bromomethane	U 0.271	U 0.271
Chloroethane	U 0.184	U 0.184
Acetone	U 0.552	0.864 0.552
Trichlorofluoromethane	U 0.392	U 0.392
Isopropyl Alcohol	U 2.860	U 2.860
1,1-Dichloroethene	U 0.277	U 0.277
Methylene Chloride	U 0.242	U 0.242
Trichlorotrifluoroethane	U 0.535	U 0.535
trans-1,2-Dichloroethene	U 0.277	U 0.277
1,1-Dichloroethane	U 0.282	U 0.282
MTBE	U 0.252	U 0.252
Vinyl Acetate	U 0.246	U 0.246
2-Butanone	U 0.206	U 0.206
cis-1,2-Dichloroethene	U 0.277	U 0.277
Ethyl Acetate	U 0.251	U 0.251
Hexane	U 0.246	U 0.246
Chloroform	U 0.341	U 0.341
Tetrahydrofuran	U 0.206	U 0.206
1,2-Dichloroethane	U 0.282	U 0.282
1,1,1-Trichloroethane	U 0.381	U 0.381
Benzene	U 0.223	U 0.223
Carbon Tetrachloride	U 0.439	U 0.439
Cyclohexane	U 0.240	U 0.240
1,2-Dichloropropane	U 0.322	U 0.322
1,4-Dioxane	U 0.251	U 0.251
Trichloroethene	U 0.375	U 0.375
Heptane	U 0.286	U 0.286
cis-1,3-Dichloropropene	U 0.317	U 0.317
Methyl Isobutyl Ketone	U 0.286	U 0.286
trans-1,3-Dichloropropene	U 0.317	U 0.317
1,1,2-Trichloroethane	U 0.381	U 0.381
Toluene	U 0.263	U 0.263
2-Hexanone	U 0.286	U 0.286
Dibromochloromethane	U 0.594	U 0.594
1,2-Dibromoethane	U 0.536	U 0.536
Tetrachloroethene	U 0.473	U 0.473
Chlorobenzene	U 0.321	U 0.321
Ethylbenzene	U 0.303	U 0.303
m&p-Xylene	U 0.303	U 0.303
Bromoform	U 0.721	U 0.721
Styrene	U 0.297	U 0.297
1,1,2,2-Tetrachloroethane	U 0.479	U 0.479
o-Xylene	U 0.303	U 0.303
p-Ethyltoluene	U 0.343	U 0.343
1,3,5-Trimethylbenzene	U 0.343	U 0.343
1,2,4-Trimethylbenzene	U 0.343	U 0.343
1,3-Dichlorobenzene	U 0.419	U 0.419
1,4-Dichlorobenzene	U 0.419	U 0.419
1,2-Dichlorobenzene	U 0.419	U 0.419

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	0.178	U	0.178	U	0.178
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
1,1-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
cis-1,2-Dichloroethene	U	0.277	0.307	0.277	U	0.277	U	0.277
1,2-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
Trichloroethene	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	2.63	0.473	U	0.473	U	0.473	U	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046		0-130-1049		0-130-1050		0-130-1054		0-130-1055	
Sample Location	DEC-AMB1		DEC-IA3		CRPDC-IA1		CRPDC-IA2		CRPDC-AMB1	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U 0.178	U 0.178			U 0.178		U 0.178		U 0.178	U 0.178
1,1-Dichloroethene	U 0.277	U 0.277			U 0.277		U 0.277		U 0.277	U 0.277
trans-1,2-Dichloroethene	U 0.277	U 0.277			U 0.277		U 0.277		U 0.277	U 0.277
1,1-Dichloroethane	U 0.282	U 0.282			U 0.282		U 0.282		U 0.282	U 0.282
cis-1,2-Dichloroethene	U 0.277	U 0.277			U 0.277		U 0.277		U 0.277	U 0.277
1,2-Dichloroethane	U 0.282	3.78 0.282			2.48 0.282		U 0.282		U 0.282	U 0.282
Trichloroethene	U 0.375	U 0.375			U 0.375		U 0.375		U 0.375	U 0.375
Tetrachloroethene	U 0.473	U 0.473			6.77 0.473		4.85 0.473		7.99 0.473	

**Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo**

Method: SERAS SOP#1814

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1003		0-130-1041		0-130-1042		0-130-1043		0-130-1047	
Sample Location	S2A-SS4		DEC-SS3		DEC-SS4		DEC-SS5		DEC-SS1	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277	U	0.277	0.334	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282								
Trichloroethene	4.88	0.375	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	998	10.2	2.29	0.473	1.13	0.473	U	0.473	48.6	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048		0-130-1051		0-130-1052		0-130-1053	
Sample Location	DEC-SS2		CRPDC-SS3		CRPDC-SS1		CRPDC-SS2	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	3.83	U	3.83	U	3.83
1,1-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
trans-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
1,1-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07
cis-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95
1,2-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07
Trichloroethene	1.66	0.375	57.1	8.06	156	8.06	94.6	8.06
Tetrachloroethene	187	0.473	249000	763	692000	1530	104000	763

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1012		0-130-1013		0-130-1018		0-130-1019	
Sample Location	3/6/2012		EQP-SS1		EQP-SS2		EQP-SS3		EQP-SS4	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	U	0.345	1.67	0.345	1.73	0.345	1.90	0.345	2.46	0.345
Chloromethane	U	0.144	0.300	0.144	0.238	0.144	0.279	0.144	0.279	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	U	0.552	6.17	0.552	11.1	0.552	31.9	0.552	16.5	0.552
Trichlorofluoromethane	U	0.392	1.14	0.392	2.61	0.392	1.97	0.392	10.3	0.392
Isopropyl Alcohol	U	2.86	1.87	2.86	2.65	0.572	2.00	0.572	43.6	0.572
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	0.618	0.277
Methylene Chloride	U	0.242	0.660	0.242	2.10	0.242	0.911	0.242	U	0.242
Trichlorotrifluoroethane	U	0.535	0.582	0.535	U	0.535	0.541	0.535	U	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	1.00	0.277	0.290	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	U	0.206	2.40	0.206	4.44	0.206	4.12	0.206	2.09	0.206
cis-1,2-Dichloroethene	U	0.277	0.300	0.277	U	0.277	0.390	0.277	17.8	0.277
Ethyl Acetate	U	0.251	1.55	0.251	1.89	0.251	1.91	0.251	1.27	0.251
Hexane	U	0.246	0.324	0.246	0.770	0.246	1.50	0.246	0.763	0.246
Chloroform	U	0.341	2.18	0.341	0.711	0.341	8.69	0.341	U	0.341
Tetrahydrofuran	U	0.206	0.333	0.206	0.506	0.206	U	0.206	0.588	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	U	0.381	1.07	0.381
Benzene	U	0.223	0.297	0.223	U	0.223	0.607	0.223	U	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240								
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	105	0.375	0.480	0.375	0.453	0.375	9.13	0.375
Heptane	U	0.286	U	0.286	U	0.286	0.346	0.286	U	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	U	0.286	1.38	0.286	0.335	0.286	2.23	0.286	3.24	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	U	0.263	3.23	0.263	3.22	0.263	4.04	0.263	1.80	0.263
2-Hexanone	U	0.286	U	0.286	0.328	0.286	0.329	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	U	0.473	7340	10.2	2170	10.2	1790	10.2	2600	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	0.461	0.303	U	0.303
m&p-Xylene	U	0.303	U	0.303	0.528	0.303	1.19	0.303	U	0.303
Bromoform	U	0.721								
Styrene	U	0.297								
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	U	0.303	U	0.303	0.556	0.303	1.23	0.303	U	0.303
p-Ethyltoluene	U	0.343								
1,3,5-Trimethylbenzene	U	0.343								
1,2,4-Trimethylbenzene	U	0.343	U	0.343	0.437	0.343	0.899	0.343	U	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419	U	0.419	U	0.419	0.488	0.419	U	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
Site WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020	0-130-1021	0-130-1022	0-130-1033	0-130-1037					
Sample Location	EQP-SS5	EQP-SS6	EQP-SS7	EQP-SS8	EQP-SS9					
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	2.37	0.345	1.82	0.345	1.72	0.345	1.09	0.345	2.01	0.345
Chloromethane	0.235	0.144	0.145	0.144	0.518	0.144	U	0.144	1.37	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	20.1	0.552	8.63	0.552	20.1	0.552	11.7	0.552	14400	2380
Trichlorofluoromethane	7.97	0.392	3.11	0.392	1.35	0.392	1.15	0.392	1.35	0.392
Isopropyl Alcohol	8.48	2.86	U	2.86	U	2.86	U	2.86	U	2.86
1,1-Dichloroethene	U	0.277								
Methylene Chloride	0.653	0.242	U	0.242	U	0.242	5.20	0.242	103	0.242
Trichlorotrifluoroethane	0.601	0.535	0.555	0.535	0.579	0.535	0.562	0.535	0.574	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	13.5	0.277	U	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	4.33	0.206	2.57	0.206	4.23	0.206	2.78	0.206	32.4	0.206
cis-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	375	5.95	U	0.277
Ethyl Acetate	2.26	0.251	1.83	0.251	1.76	0.251	1.97	0.251	U	0.251
Hexane	1.21	0.246	1.31	0.246	0.905	0.246	1.37	0.246	41.8	0.246
Chloroform	0.447	0.341	0.508	0.341	0.780	0.341	19.4	0.341	1.63	0.341
Tetrahydrofuran	0.566	0.206	1.37	0.206	0.743	0.206	0.909	0.206	49.6	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	0.638	0.381	U	0.381
Benzene	0.379	0.223	U	0.223	U	0.223	3.32	0.223	1.25	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240	U	0.240	U	0.240	U	0.240	1.12	0.240
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	0.843	0.375	9.41	0.375	3370	8.06	0.654	0.375
Heptane	U	0.286								
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	0.721	0.286	1.06	0.286	2.08	0.286	5.27	0.286	21.6	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	4.93	0.263	2.42	0.263	2.33	0.263	3.26	0.263	858	5.65
2-Hexanone	0.546	0.286	U	0.286	0.319	0.286	U	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	748	10.2	5710	10.2	3650	10.2	756000	2030	561	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	U	0.303	3.90	0.303
m&p-Xylene	0.896	0.303	0.443	0.303	U	0.303	0.504	0.303	16.6	0.303
Bromoform	U	0.721								
Styrene	U	0.297	0.389	0.297	U	0.297	U	0.297	0.526	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	0.581	0.303	0.376	0.303	U	0.303	U	0.303	9.89	0.303
p-Ethyltoluene	U	0.343	U	0.343	U	0.343	U	0.343	61.8	0.343
1,3,5-Trimethylbenzene	U	0.343	U	0.343	U	0.343	U	0.343	47.7	0.343
1,2,4-Trimethylbenzene	0.486	0.343	U	0.343	U	0.343	0.598	0.343	130	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419								
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1039	RL
Sample Location	EQP-SS10	$\mu\text{g}/\text{m}^3$
Sublocation		
Propylene	U	0.120
Dichlorodifluoromethane	1.77	0.345
Chloromethane	1.39	0.144
Dichlorotetrafluoroethane	U	0.488
Vinyl Chloride	U	0.178
1,3-Butadiene	U	0.154
Bromomethane	U	0.271
Chloroethane	U	0.184
Acetone	1100	11.9
Trichlorofluoromethane	1.17	0.392
Isopropyl Alcohol	14.6	2.86
1,1-Dichloroethene	U	0.277
Methylene Chloride	16.9	0.242
Trichlorotrifluoroethane	0.606	0.535
trans-1,2-Dichloroethene	U	0.277
1,1-Dichloroethane	U	0.282
MTBE	U	0.252
Vinyl Acetate	U	0.246
2-Butanone	46.0	0.206
cis-1,2-Dichloroethene	U	0.277
Ethyl Acetate	18.7	0.251
Hexane	31.9	0.246
Chloroform	8.78	0.341
Tetrahydrofuran	5.59	0.206
1,2-Dichloroethane	1.04	0.282
1,1,1-Trichloroethane	U	0.381
Benzene	15.0	0.223
Carbon Tetrachloride	0.924	0.439
Cyclohexane	6.58	0.240
1,2-Dichloropropane	1.06	0.322
1,4-Dioxane	U	0.251
Trichloroethene	U	0.375
Heptane	17.7	0.286
cis-1,3-Dichloropropene	U	0.317
Methyl Isobutyl Ketone	U	0.286
trans-1,3-Dichloropropene	U	0.317
1,1,2-Trichloroethane	U	0.381
Toluene	131000	1130
2-Hexanone	U	0.286
Dibromochloromethane	U	0.594
1,2-Dibromoethane	U	0.536
Tetrachloroethene	33.4	0.473
Chlorobenzene	U	0.321
Ethylbenzene	54.2	0.303
m&p-Xylene	133	0.303
Bromoform	U	0.721
Styrene	2.51	0.297
1,1,2,2-Tetrachloroethane	U	0.479
o-Xylene	29.9	0.303
p-Ethyltoluene	12.0	0.343
1,3,5-Trimethylbenzene	8.79	0.343
1,2,4-Trimethylbenzene	27.8	0.343
1,3-Dichlorobenzene	U	0.419
1,4-Dichlorobenzene	1.55	0.419
1,2-Dichlorobenzene	U	0.419

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1057	
Sample Location	3/5/2012		Trip Blank	
Sublocation	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Propylene	U	0.0698	U	0.0698
Dichlorodifluoromethane	U	0.0698	U	0.0698
Chloromethane	U	0.0698	U	0.0698
Dichlorotetrafluoroethane	U	0.0698	U	0.0698
Vinyl Chloride	U	0.0698	U	0.0698
1,3-Butadiene	U	0.0698	U	0.0698
Bromomethane	U	0.0698	U	0.0698
Chloroethane	U	0.0698	U	0.0698
Acetone	U	0.233	0.364	0.233
Trichlorofluoromethane	U	0.0698	U	0.0698
Isopropyl Alcohol	U	1.165	U	1.165
1,1-Dichloroethene	U	0.0698	U	0.0698
Methylene Chloride	U	0.0698	U	0.0698
Trichlorotrifluoroethane	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698
MTBE	U	0.0698	U	0.0698
Vinyl Acetate	U	0.0698	U	0.0698
2-Butanone	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698
Ethyl Acetate	U	0.0698	U	0.0698
Hexane	U	0.0698	U	0.0698
Chloroform	U	0.0698	U	0.0698
Tetrahydrofuran	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698
1,1,1-Trichloroethane	U	0.0698	U	0.0698
Benzene	U	0.0698	U	0.0698
Carbon Tetrachloride	U	0.0698	U	0.0698
Cyclohexane	U	0.0698	U	0.0698
1,2-Dichloropropane	U	0.0698	U	0.0698
1,4-Dioxane	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698
Heptane	U	0.0698	U	0.0698
cis-1,3-Dichloropropene	U	0.0698	U	0.0698
Methyl Isobutyl Ketone	U	0.0698	U	0.0698
trans-1,3-Dichloropropene	U	0.0698	U	0.0698
1,1,2-Trichloroethane	U	0.0698	U	0.0698
Toluene	U	0.0698	U	0.0698
2-Hexanone	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698	U	0.0698
1,2-Dibromoethane	U	0.0698	U	0.0698
Tetrachloroethene	U	0.0698	U	0.0698
Chlorobenzene	U	0.0698	U	0.0698
Ethylbenzene	U	0.0698	U	0.0698
m&p-Xylene	U	0.0698	U	0.0698
Bromoform	U	0.0698	U	0.0698
Styrene	U	0.0698	U	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698	U	0.0698
o-Xylene	U	0.0698	U	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698
1,3-Dichlorobenzene	U	0.0698	U	0.0698
1,4-Dichlorobenzene	U	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	0.0775	-0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	0.388	0.0698	U	0.0698	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046		0-130-1049		0-130-1050		0-130-1054		0-130-1055	
Sample Location	DEC-AMB1		DEC-IA3		CRPDC-IA1		CRPDC-IA2		CRPDC-AMB1	
Sublocation	Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698								
1,1-Dichloroethene	U	0.0698								
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
cis-1,2-Dichloroethene	U	0.0698								
1,2-Dichloroethane	U	0.0698	0.933	0.0698	0.614	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698								
Tetrachloroethene	U	0.0698	U	0.0698	0.998	0.0698	0.715	0.0698	1.18	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1001		0-130-1002		0-130-1006		0-130-1007		0-130-1008	
Sample Location	S2A-SS2		S2A-SS3		S2B-SS1		S2B-SS2		S2B-SS3	
Analyte	Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698								
1,1-Dichloroethene	U	0.0698								
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
cis-1,2-Dichloroethene	U	0.0698								
1,2-Dichloroethane	U	0.0698								
Trichloroethene	0.294	0.0698	7.38	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	48.9	0.0698	849	1.50	3.14	0.0698	2.65	0.0698	3.92	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1003		0-130-1041		0-130-1042		0-130-1043		0-130-1047			
Sample Location	S2A-SS4		DEC-SS3		DEC-SS4		DEC-SS5		DEC-SS1			
Sublocation		Results ppbv	RL ppbv									
Analyte												
Vinyl Chloride		U	0.0698		U	0.0698		U	0.0698		U	0.0698
1,1-Dichloroethene		U	0.0698		U	0.0698	0.0842	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene		U	0.0698		U	0.0698		U	0.0698	U	0.0698	
1,1-Dichloroethane		U	0.0698		U	0.0698		U	0.0698	U	0.0698	
cis-1,2-Dichloroethene		U	0.0698		U	0.0698		U	0.0698	U	0.0698	
1,2-Dichloroethane		U	0.0698		U	0.0698		U	0.0698	U	0.0698	
Trichloroethene	0.907	0.0698		U	0.0698		U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	147	1.50		0.337	0.0698	0.167	0.0698	U	0.0698	7.16	0.0698	

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048		0-130-1051		0-130-1052		0-130-1053	
Sample Location	DEC-SS2		CRPDC-SS3		CRPDC-SS1		CRPDC-SS2	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
trans-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
cis-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,2-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
Trichloroethene	0.309	0.0698	10.6	1.50	29.0	1.50	17.6	1.50
Tetrachloroethene	27.5	0.0698	36700	113	102000	225	15400	113

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1012		0-130-1013		0-130-1018		0-130-1019	
Sample Location	3/6/2012		EQP-SS1		EQP-SS2		EQP-SS3		EQP-SS4	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	U	0.0698	0.338	0.0698	0.351	0.0698	0.384	0.0698	0.498	0.0698
Chloromethane	U	0.0698	0.145	0.0698	0.115	0.0698	0.135	0.0698	0.135	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	U	0.233	2.60	0.233	4.65	0.233	13.40	0.233	6.94	0.233
Trichlorofluoromethane	U	0.0698	0.204	0.0698	0.464	0.0698	0.351	0.0698	1.830	0.0698
Isopropyl Alcohol	U	1.16	U	1.16	U	1.16	U	1.16	17.800	1.16
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.156	0.0698
Methylene Chloride	U	0.0698	0.190	0.0698	0.603	0.0698	0.262	0.0698	U	0.0698
Trichlorotrifluoroethane	U	0.0698	0.0759	0.0698	U	0.0698	0.0706	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	0.253	0.0698	0.0732	0.0698
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	U	0.0698	0.814	0.0698	1.510	0.0698	1.400	0.0698	0.707	0.0698
cis-1,2-Dichloroethene	U	0.0698	0.0757	0.0698	U	0.0698	0.0984	0.0698	4.5000	0.0698
Ethyl Acetate	U	0.0698	0.430	0.0698	0.524	0.0698	0.529	0.0698	0.353	0.0698
Hexane	U	0.0698	0.0919	0.0698	0.2190	0.0698	0.4240	0.0698	0.2160	0.0698
Chloroform	U	0.0698	0.446	0.0698	0.146	0.0698	1.780	0.0698	U	0.0698
Tetrahydrofuran	U	0.0698	0.113	0.0698	0.172	0.0698	U	0.0698	0.199	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.197	0.0698
Benzene	U	0.0698	0.0930	0.0698	U	0.0698	0.1900	0.0698	U	0.0698
Carbon Tetrachloride	U	0.0698								
Cyclohexane	U	0.0698								
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698	19.5	0.0698	0.1	0.0698	0.1	0.0698	1.7	0.0698
Heptane	U	0.0698	U	0.0698	U	0.0698	0.0845	0.0698	U	0.0698
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	U	0.0698	0.336	0.0698	0.082	0.0698	0.543	0.0698	0.791	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	U	0.0698	0.858	0.0698	0.854	0.0698	1.070	0.0698	0.478	0.0698
2-Hexanone	U	0.0698	U	0.0698	0.08	0.0698	0.0804	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	U	0.0698	1080	1.50	319	1.50	265	1.50	383	1.50
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	U	0.0698	0.106	0.0698	U	0.0698
m&p-Xylene	U	0.0698	U	0.0698	0.121	0.0698	0.274	0.0698	U	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698								
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	U	0.0698	U	0.0698	0.128	0.0698	0.283	0.0698	U	0.0698
p-Ethyltoluene	U	0.0698								
1,3,5-Trimethylbenzene	U	0.0698								
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698	0.089	0.0698	0.183	0.0698	U	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698	U	0.0698	U	0.0698	0.0811	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020		0-130-1021		0-130-1022		0-130-1033		0-130-1037	
Sample Location	EQP-SS5		EQP-SS6		EQP-SS7		EQP-SS8		EQP-SS9	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	0.479	0.0698	0.369	0.0698	0.348	0.0698	0.221	0.0698	0.406	0.0698
Chloromethane	0.114	0.0698	0.0700	0.0698	0.251	0.0698	U	0.0698	0.661	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	8.46	0.233	3.63	0.233	8.44	0.233	4.92	0.233	6080	1000
Trichlorofluoromethane	1.42	0.0698	0.554	0.0698	0.240	0.0698	0.205	0.0698	0.240	0.0698
Isopropyl Alcohol	3.45	1.16	U	1.16	U	1.16	U	1.16	U	1.16
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	0.188	0.0698	U	0.0698	U	0.0698	1.50	0.0698	29.6	0.0698
Trichlorotrifluoroethane	0.0784	0.0698	0.0725	0.0698	0.0756	0.0698	0.0734	0.0698	0.0749	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	3.41	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	1.47	0.0698	0.873	0.0698	1.43	0.0698	0.941	0.0698	11.0	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	94.5	1.50	U	0.0698
Ethyl Acetate	0.628	0.0698	0.508	0.0698	0.487	0.0698	0.546	0.0698	U	0.0698
Hexane	0.343	0.0698	0.371	0.0698	0.257	0.0698	0.388	0.0698	11.9	0.0698
Chloroform	0.0916	0.0698	0.104	0.0698	0.160	0.0698	3.97	0.0698	0.334	0.0698
Tetrahydrofuran	0.192	0.0698	0.464	0.0698	0.252	0.0698	0.308	0.0698	16.8	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698	U	0.0698	U	0.0698	0.117	0.0698	U	0.0698
Benzene	0.119	0.0698	U	0.0698	U	0.0698	1.04	0.0698	0.392	0.0698
Carbon Tetrachloride	U	0.0698								
Cyclohexane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.324	0.0698
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698	0.157	0.0698	1.75	0.0698	627	1.50	0.122	0.0698
Heptane	U	0.0698								
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	0.176	0.0698	0.259	0.0698	0.509	0.0698	1.29	0.0698	5.27	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	1.31	0.0698	0.643	0.0698	0.617	0.0698	0.865	0.0698	228	1.50
2-Hexanone	0.133	0.0698	U	0.0698	0.0778	0.0698	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	110	1.50	841	1.50	539	1.50	111000	300	82.8	1.50
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.897	0.0698
m&p-Xylene	0.206	0.0698	0.102	0.0698	U	0.0698	0.116	0.0698	3.82	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698	0.0912	0.0698	U	0.0698	U	0.0698	0.123	0.0698
1,1,2-Tetrachloroethane	U	0.0698								
o-Xylene	0.134	0.0698	0.0867	0.0698	U	0.0698	U	0.0698	2.28	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	12.6	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	9.70	0.0698
1,2,4-Trimethylbenzene	0.0988	0.0698	U	0.0698	U	0.0698	0.122	0.0698	26.5	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698								
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1039	
Sample Location	EQP-SS10	
Sublocation		
Analyte	Results ppbv	RL ppbv
Propylene	U	0.0698
Dichlorodifluoromethane	0.358	0.0698
Chloromethane	0.673	0.0698
Dichlorotetrafluoroethane	U	0.0698
Vinyl Chloride	U	0.0698
1,3-Butadiene	U	0.0698
Bromomethane	U	0.0698
Chloroethane	U	0.0698
Acetone	461	5.00
Trichlorofluoromethane	0.208	0.0698
Isopropyl Alcohol	5.94	1.16
1,1-Dichloroethene	U	0.0698
Methylene Chloride	4.85	0.0698
Trichlorotrifluoroethane	0.0791	0.0698
trans-1,2-Dichloroethene	U	0.0698
1,1-Dichloroethane	U	0.0698
MTBE	U	0.0698
Vinyl Acetate	U	0.0698
2-Butanone	15.6	0.0698
cis-1,2-Dichloroethene	U	0.0698
Ethyl Acetate	5.19	0.0698
Hexane	9.05	0.0698
Chloroform	1.80	0.0698
Tetrahydrofuran	1.90	0.0698
1,2-Dichloroethane	0.257	0.0698
1,1,1-Trichloroethane	U	0.0698
Benzene	4.69	0.0698
Carbon Tetrachloride	0.147	0.0698
Cyclohexane	1.91	0.0698
1,2-Dichloropropane	0.229	0.0698
1,4-Dioxane	U	0.0698
Trichloroethene	U	0.0698
Heptane	4.31	0.0698
cis-1,3-Dichloropropene	U	0.0698
Methyl Isobutyl Ketone	U	0.0698
trans-1,3-Dichloropropene	U	0.0698
1,1,2-Trichloroethane	U	0.0698
Toluene	34700	300
2-Hexanone	U	0.0698
Dibromochloromethane	U	0.0698
1,2-Dibromoethane	U	0.0698
Tetrachloroethene	4.92	0.0698
Chlorobenzene	U	0.0698
Ethylbenzene	12.5	0.0698
m&p-Xylene	30.6	0.0698
Bromoform	U	0.0698
Styrene	0.589	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698
o-Xylene	6.89	0.0698
p-Ethyltoluene	2.44	0.0698
1,3,5-Trimethylbenzene	1.79	0.0698
1,2,4-Trimethylbenzene	5.65	0.0698
1,3-Dichlorobenzene	U	0.0698
1,4-Dichlorobenzene	0.257	0.0698
1,2-Dichlorobenzene	U	0.0698

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0009

Cooler #: 4

Lab: SERAS

899458692192
WO # R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
24	0-130-1004	S2A-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	226	14028	-30	3/1/2012	6:28:00 AM
25	0-130-1005	S2A-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	128	13933	-30	3/1/2012	6:35:00 AM
26	0-130-1044	DEC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	97	14010	-30	3/1/2012	10:36:00 AM
27	0-130-1045	DEC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	129	13794	-30	3/1/2012	10:44:00 AM
28	0-130-1046	DEC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	149	13958	-30	3/1/2012	11:00:00 AM
29	0-130-1049	DEC-IA3	TO-15 (Chlorinated)	Air	1	SUMMA	215	14023	-30	3/1/2012	10:53:00 AM
30	0-130-1050	CRPDC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	10	13762	-30	3/1/2012	11:20:00 AM
31	0-130-1054	CRPDC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	47	14000	-30	3/1/2012	11:23:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All/Analysis	<u>M. A. C.</u>	3/2/12	FED-EX	3/2/12							
-----	<u>FEDEX</u>		<u>John Shaw</u>	3/5/12	11:30						
All/Analysis	<u>M. A. C.</u>	3/5/12	<u>Tiff</u>	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

WOT#R203001

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0010

Cooler #: 5

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
32	0-130-1012	EQP-SS1	TO-15 (Full List)	Soil Gas	1	SUMMA	63	13991	-30	3/1/2012	7:40:00 AM
33	0-130-1013	EQP-SS2	TO-15 (Full List)	Soil Gas	1	SUMMA	228	13789	-30	3/1/2012	7:38:00 AM
34	0-130-1018	EQP-SS3	TO-15 (Full List)	Soil Gas	1	SUMMA	3	14015	-30	3/1/2012	7:36:00 AM
35	0-130-1019	EQP-SS4	TO-15 (Full List)	Soil Gas	1	SUMMA	220	13998	-30	3/1/2012	7:30:00 AM
36	0-130-1020	EQP-SS5	TO-15 (Full List)	Soil Gas	1	SUMMA	14073	13778	-30	3/1/2012	7:28:00 AM
37	0-130-1021	EQP-SS6	TO-15 (Full List)	Soil Gas	1	SUMMA	182	13988	-30	3/1/2012	7:32:00 AM
38	0-130-1022	EQP-SS7	TO-15 (Full List)	Soil Gas	1	SUMMA	266	13990	-30	3/1/2012	7:34:00 AM
39	0-130-1055	CRPDC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	74	14029	-30	3/1/2012	11:24:00 AM

Special Instructions: Analyze per PWA. Sample 0-130-1055 gets Chlorinated list only, the remaining samples get Full TO-15 list.

*Sub-slab sample previously collected at Location EQP-SS1 (sample 0-130-1012) indicated concentrations of 4,970 ppbv for PCE, 83 ppbv for TCE and 50 ppbv for DCE. Similar concentrations may be detected at this location and in other soil gas samples collected at locations EQP-SS2 through 7.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All/Analysis	M. Cartwright	3/4/12	FED-EX	3/2/12							
FED-EX				3/5/12	11:30						
All/Analysis	J. Zim	3/5/12	B. S.	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0011

Cooler #: 6

Lab: SERAS

W0ff R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
40	0-130-1001	S2A-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14066	13964	-30	3/1/2012	6:28:00 AM
41	0-130-1002	S2A-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	41	13923	-30	3/1/2012	6:29:00 AM
42	0-130-1006	S2B-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	143	13776	-30	3/1/2012	6:42:00 AM
43	0-130-1007	S2B-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	195	14042	-30	3/1/2012	6:43:00 AM
44	0-130-1008	S2B-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	227	14043	-30	3/1/2012	6:44:00 AM
45	0-130-1033	EQP-SS8	TO-15 (Full List)	Soil Gas	1	SUMMA	144	14036	-30	3/1/2012	9:30:00 AM
46	0-130-1037	EQP-SS9	TO-15 (Full List)	Soil Gas	1	SUMMA	222	13906	-30	3/1/2012	9:32:00 AM
47	0-130-1039	EQP-SS10	TO-15 (Full List)	Soil Gas	1	SUMMA	236	13944	-30	3/1/2012	10:18:00 AM

Special Instructions: Analyze per PWA. Samples 0-130-1001, 1002, 1006, 1007 and 1008 get Chlorinated VOC list. Samples 0-130-1033, 1037 and 1039 get Full TO-15 list.

*Sub-slab sample previously collected near Location EQP-SS8 (sample 0-130-1033) indicated concentrations of 980 ppbv for PCE, 190 ppbv for TCE and 1,700 ppbv for DCE. Similar concentrations may be detected at this location and other soil gas samples collected at location EQP.

*Soil gas samples previously collected near Location S2A and S2B indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at locations S2A and S2B.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All / Analysis	Michael	3/2/12	FED-EX	3/2/12	-	←	FED EX	-	John	3/5/12	11:30
All / Analysis	John	3/5/12	Bob	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

Cabo Rojo

No: 0-130-3/2/12-0012

Cooler #: 7

Lab: SERAS

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

W0# R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressur e	Stop_Da te	Stop_Ti me
48	0-130-1003	S2A-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14074	14011	-30	3/1/2012	6:30:00 AM
49	0-130-1041	DEC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	70	13946	-30	3/1/2012	10:40:00 AM
50	0-130-1042	DEC-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	76	13911	-30	3/1/2012	10:42:00 AM
51	0-130-1043	DEC-SS5	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	166	13912	-30	3/1/2012	10:36:00 AM
52	0-130-1047	DEC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	19	13795	-30	3/1/2012	10:50:00 AM
53	0-130-1048	DEC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	24	14008	-30	3/1/2012	10:52:00 AM
54	0-130-1051	CRPDC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	160	13929	-30	3/1/2012	11:20:00 AM
55	0-130-1052	CRPDC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	112	14047	-30	3/1/2012	11:21:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.

*Soil gas samples previously collected near Location S2A indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at location S2A.

SAMPLES TRANSFERRED FROM

*Soil gas samples previously collected at Locations DEC-SS1 and SS-5 (Samples 0-130-1047 and 1043) were non-detect for PCE, TCE and DEC however soil gas samples collected around the DEC building indicated concentrations of 430 ppbv for PCE and TCE, 850 to 50,200 ppbv for DCE. Similar concentrations may be detected in soil gas samples collected at location DEC.

CHAIN OF CUSTODY

*Soil gas samples previously collected at Location CRPDC-SS1 (Sample 0-130-1052) indicated concentrations of 64,700 ppbv for PCE and 58 ppbv for TCE. Similar concentrations may be detected at this location and in other soil gas samples collected at location CRPDC.

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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A4/Analysis *M. Cartwright 3/2/12* FED-EX 3/2/12 — — FED EX — *3/5/12 11:30*
 All/Analysis *3/5/12 BPF* 3/5/12 1630

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

Airbill No: 800458602102

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0013

Cooler #: 8

Jah: SERAS

CarrierName: FedEx
AirbillNo: 899458692192
W0#R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
56	0-130-1053	CRPDC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	119	13989	-30	3/1/2012	11:22:00 AM
57	0-130-1057	Trip Blank	TO-15 (Full List)	Air	1	SUMMA	219		-30	3/2/2012	12:00:00 PM

Special Instructions: Analyze per PWA. Sample 0-130-1053 analyzed for chlorinated VOC list only. Trip blank gets full TO-15 analysis.

SAMPLES TRANSFERRED FROM

*Soil gas samples previously collected at Location CRPDC-SS2 (Sample 0-130-1053) indicated concentrations of 4,870 ppbv for PCE and 32 ppbv for TCE. Similar concentrations may be detected at this location.

CHAIN OF CUSTODY #

Deposit Required

Reservation Confirmation

Reservation #: 350192
Guest: ANDERSON, ARLENE
T/A #:

Received Date	Status	Arrival Date	Nights	Depart Date	Room Type	Adt	Chd	Gtd By	Rate Code	Rate	Tax	BW Conf#
03/08/12	Reserved	03/18/12	4	03/22/12	K	1	0	MC	FED	\$103.00	Y	279793
					Rate Change				Rate Change			

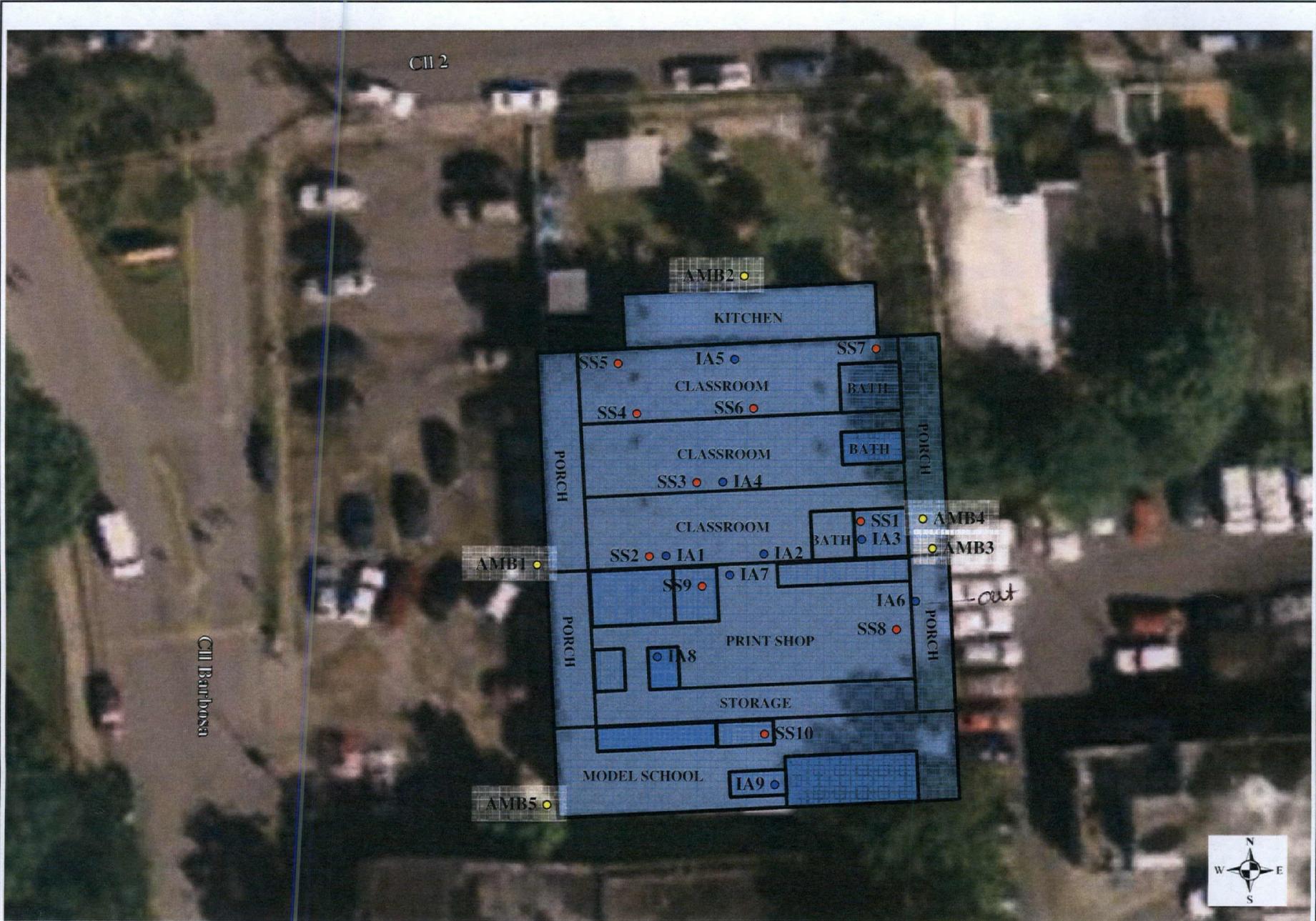
ANDERSON, ARLENE

*

* * *

Thank you for choosing

MAYAGUEZ RESORT & CASINO



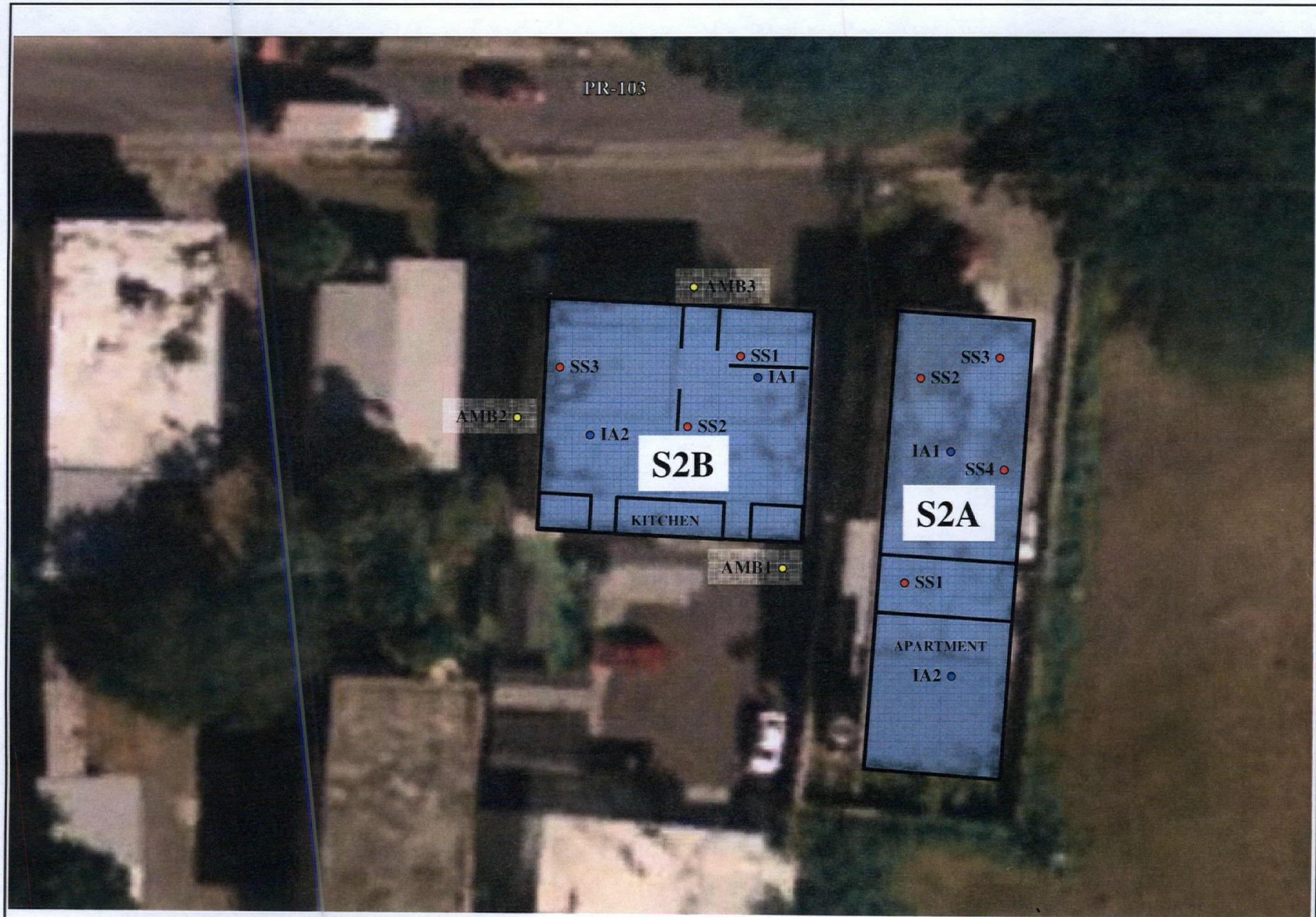
LEGEND

- Sub-slab soil gas sample
- Indoor air sample
- Ambient air sample

U.S. EPA Environmental Response Team
 Scientific Engineering Response and Analytical Services
 Contract No. EP-W-09-031
 Work Assignment No. SERAS-130

FIGURE 1
EQP BUILDING SAMPLING LOCATIONS
CABO ROJO SITE
CABO ROJO, PR

PR-103



LEGEND

- Sub-slab soil gas sample
- Indoor air sample
- Ambient air sample



U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
Contract No. EP-W-09-031
Work Assignment No. SERAS-130

FIGURE 2
S2A/B BUILDING SAMPLING LOCATIONS
CABO ROJO SITE
CABO ROJO, PR



CII Pedro Albizu Campos

LEGEND

- Sub-slab soil gas sample
- Indoor air sample
- Ambient air sample



U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
Contract No. EP-W-09-031
Work Assignment No. SERAS-130

FIGURE 3
CRPDC BUILDING SAMPLING LOCATIONS
CABO ROJO SITE
CABO ROJO, PR

**LEGEND**

- Sub-slab soil gas sample
- Indoor air sample
- Ambient air sample



U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
Contract No. EP-W-09-031
Work Assignment No. SERAS-130

FIGURE 4
DEC BUILDING SAMPLING LOCATIONS
CABO ROJO SITE
CABO ROJO, PR